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ELEMENTS OF ECONOMICS

NAND LAL BHATNAGAR M.A.,

Head of the Department of Economics
Meerut College, MEERUT.

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PREFACE TO THE SECOND EDITION.

In this edition the book has been revised and, as far as possible, brought up-to-date. Economic conditions in India and in the world have been undergoing important and fundamental changes during the last six years and they are still fluid. It is not easy under such conditions to fix up one's ideas about many *phases of things that are still unfolding*. Nevertheless certain new and important topics have been included. Not until the war is over and conditions settle down a little, can things be seen clearly. A few years must pass before this can be possible.

Meerut,
January 1945.

NAND LAL BHATNAGAR.

EXTRACTS FROM PREFACE TO THE FIRST EDITION.

During my pretty long experience of teaching Economics to the degree and post-graduate classes, one thing never failed to strike me constantly; namely, the almost total absence of suitable books for degree class students written by Indian authors. There are some good books for the use of Intermediate class students, and also a number of very good books dealing with purely Indian economic problems written by Indian authors; but there are practically no books dealing with general principles of Economics in the light of Indian conditions suitable for degree class students, or for the general reader. Standard works on the subject, written by English or American authors and recommended for senior students by different Indian Universities, do not deal with *Indian economic problems*. What has usually to be done, therefore is that general principles of Economics are studied from books written by English or American writers, while for *Indian economic problems* a suitable book on *Indian Economics* has to be consulted.

This practice is beset with a number of difficulties and disadvantages. In the first place, it is not easy for Indian students of moderate means to purchase one standard book on Principles written by a foreign author and another on Indian economic problems written by an Indian. The cost of even one foreign book is sufficiently high; that of the two becomes almost prohibitive, except for the very few. In the second place, books written by foreign authors are meant primarily for their own nationals, and deal with many problems of a more or less local character, which are not of much interest to Indian readers. Their whole setting is of an alien character, and so cannot appeal to them. In the third place—and this is a very important consideration—the treatment of the subject and the point of view adopted is at many places entirely at variance with the cherished ideals and urgent requirements of modern India.

The introduction of the element of nationality of the author may perhaps, sound strange to the ears of those who still swear by the purely scientific and international character of the body of knowledge known as Economics. It is, however, a happy sign of the times that the number of Indians still under the hypnotic spell of English classical theories is gradually but steadily declining, and more stress has begun to be laid on the 'fruit bearing' and national aspect of Economics than on its merely 'light giving' and cosmopolitan aspect. Also, it will have to be admitted that the national system of political economy as preached by Frederick List in Germany has to-day a large number of votaries in the world than it had ever before. Fascist Italy and Nazi Germany have caused violent searching of heart not only among political theorists, but also among economic thinkers.

A careful study of the history of economic doctrines will convince any reader that most of the doctrines and theories were at their inception the outcome of peculiar conditions and environments as they existed in the countries of their birth. With the change in these conditions and circumstances the particular theories also underwent radical modifications, and were at times altogether discarded. The truth of the relativity of economic doctrines, therefore, has now begun to be recognised by many, though it is openly confessed by very few. Even those "laws" of Economics which are based on human psychology are no longer regarded as absolute and universal, for human psychology itself changes from time to time and place to place, sometimes in very important respects and in a bewildering manner.

Under these circumstances is it not really regrettable to find that in the absence of suitable books written on the subject by Indian authors, those written by foreign authors have had to be recommended by different Indian Universities for Indian students? Time has also come when not only students of Universities but also members of the general public, who can read and understand English, should devote a part of their time to the study of Economics. In the present book, accordingly, I have made an attempt not only to satisfy the requirements of students appearing for degree examination of various Universities, but have also tried to explain the leading Economic Principles and important economic problems in simple language and style so as to make the subject intelligible to the general reader.

NANDLAL BHATNAGAR.

CONTENTS.

CHAPTER.		PAGE
I	Introductory	1
II	Methods of Economic Investigation	17
III	Some Important Economic Terms	23
IV	Production	36
V	Land	52
VI	Products of Indian Land	63
VII	Some Rural Economic Problems	77
VIII	Labour	93
IX	Capital	115
X	Organisation	141
XI	Co-operation	177
XII	Exchange of Wealth	197
XIII	Monopoly	224
XIV	International Trade	232
XV	Money	257
XVI	Credit & Banking	282
XVII	Systems of Banking	296
XVIII	Foreign Exchange	319
XIX	Indian Currency & Exchange	341
XX	Rent	372
XXI	Wages	387
XXII	Interest	408
XXIII	Profits	417
XXIV	Consumption	425
XXV	Measurement of Wants	439
XXVI	Public Finance	427
XXVII	Taxation	481
XXVIII	Indian Finance	498
XXIX	National Wealth and Progress	531

APPENDICES

A	Foreign Trade of India	547
B	Consolidation of Holdings	554
C	Diagrammatic Representation of the Demand & Supply Theory of Value under competitive condition	560
D	Diagrammatic Representation of the Demand and Supply Theory of Value under Monopolistic condition	563
E	Water Transport in India	565
F	Effect of Second World War on Indian Exports and Imports	573
G	"Industrial Development in India During the Second War"	576
H	Cottage Industries in India	585

To .
The Memory
of
My Mother.

National consciousness is markedly on the increase in different parts of the world, ever since the close of the Great War. The State has begun to be regarded as the most efficient means to direct the multifarious activities of its subjects in a particular direction. The accomplishments of Soviet Russia, Fascist Italy and Nazi Germany have set people in different parts of the world thinking deeply. All this has resulted in the ever increasing importance that has begun to be attached to the economic and financial activities of the State. Political economy has also correspondingly risen in importance. Like Household and Business economy, political economy, therefore is also a component part of Economics.

(d) **World Economy.** Although national consciousness has increased in the present day world to a very large extent, it cannot be denied that since the advent of railways and steamships the different parts of the world have been drawn very close together. The rapid development in the means of communication and transportation have reduced, so to say, the size of the globe considerably. It has become very easy to send raw materials and finished products from one country to another. Different parts of the world have begun to make their respective deficiencies by the import or export of raw materials or finished products according to their needs. Surplus products of one find markets in another, and so each country has become more dependent upon the other than it was ever before.

With the growth of international trade, the problem of foreign exchanges has also begun to attract the attention of the world. If the currency of one country becomes depreciated, it is no longer a matter of indifference to other countries which trade with it. A crisis in one cannot fail to affect the trade prospects of the other.

These and like problems have assumed so great an importance that for such purposes, at least, the whole world has begun to be regarded as one unit. Principles have been laid down which can be adopted with advantage by different countries of the world, and appeals are made for concerted action. Some enthusiasts have gone so far as to say that this is the most important branch of Economics and that all other parts are subordinate to it. Be that as it may, it is undoubtedly very necessary to carefully study, the conditions and inter-relations of the economic life of the world, regulated and encouraged by perfected transportation and by national and inter-national agreements." This is the subject matter of world economy, which is the fourth and last component part of Economics.

The Subject matter of Economics We are now in a better position to say something about Economics and its subject matter. The subject matter of Economics is the sum total of the subject matters of its four component parts. Economics therefore deals with,

- (a) the expenditure side of a household
- (b) the income side of a business,

- (c) the income and expenditure side of a State and
- (d) the trade relations between one State and another.

If we want to be brief, we may say that, Economics deals with the ways in which money is earned and spent, and also suggests methods according to which it should be earned and spent. The above is not an exact definition of Economics but it is certainly an approach to it.

We should also remember that Economics is concerned exclusively with monetary activities of men and States. Money is, in modern times, the representative name for wealth. Economics, therefore, is very closely related to those activities of men which have something to do with wealth.

Is Economics a Science or an Art? Before answering this question, it is necessary to understand the significance and true meaning of the terms Science and Art. A Science is that branch of knowledge regarding any phenomenon which is exclusively concerned with finding out facts as they actually are or have been. It does not say whether those facts are good or bad; and whether they ought to be tolerated or not. When a Science is silent even on the point of desirableness or otherwise of a particular fact or phenomenon, the question of suggesting ways and means, whereby the undesirable may be removed and the desirable may be installed, does not arise. A Science is concerned only with finding out what is, or has been, and also with finding out the causes or sequences thereof. In connection with the phenomenon with which a science deals, it plays the part of a reporter, who only observes things as they are and notes them down. A Science therefore only *describes*.

An art, on the other hand, lays down practical rules of conduct, and then suggests ways and means whereby the good and the desirable may take the place of the bad and the undesirable. An art is not satisfied only with things as they are, it points out what ought to be, and then lays down rules of guidance which, if adopted, are likely to help in the achievement of the ideal. It is not satisfied with playing the role of an uninterested spectator, but it likes to see things in an ideal state and is ever ready with suggestions. It does not merely describe, but it also *prescribes*.

Economics As a Science. Let us now examine how Economics would appear before us if it were treated merely as, a Science. An economist who regards Economics as a science, can only say, to take an example at random, that the economic condition of Indians in general is such that they cannot adequately feed and clothe themselves. He may also go further and, upon the basis of his observation or analysis, note down certain causes of this state of things. But he cannot say whether this state of things is good or bad, desirable or undesirable. If he does so, he will be held guilty of passing judgments, which cannot be done by an economist, but which, according to this school of thought, fall within

the domain of Moral philosophy. Consequently, only Moral philosophers are competent to pass such judgments and say which states of being are desirable and which undesirable. When an economist, who starts with his work of economic investigation as a pure scientist, cannot even call a thing good or bad, there is clearly no question of his suggesting ways or means for the removal of that which he *thinks* but cannot *call* bad. His function is only to observe, analyse and report. He cannot go beyond that.

Economics as an Art - On the other hand, an economist who regards Economics as an art, can, after observing the condition of the people, unhesitatingly declare that the state of things in which he finds Indians to-day is extremely undesirable and should not be tolerated for a moment. He will compare the economic condition of the Indian masses with that of the American and British people, and bring out the vast difference between the two before the public eye. But he will not rest content even here. As he understands this subject, and has learnt a great deal about economic affairs of other countries also, he makes suggestions which, hopes may improve matters if adopted. As he is not himself an administrator he can only *suggest* ways and means and can only draw up and submit *schemes*. It is possible that some of these schemes may be found difficult of adoption, owing to certain reasons or other considerations, but some others may be adopted with advantage.

Economics more an Art than a Science. We have now before us the two alternatives of treating Economics either as a science or an art. It is obvious that by accepting Economics as a science we deprive it of a large part of its usefulness. We cripple the economist unnecessarily and even unnaturally. It is really impossible to observe certain things and conditions which we know and feel should not be there, or should not be permitted to continue, and yet not to open our mouth and express our feelings and reactions. It is again equally impossible not to make suggestions to improve the sad state of things that comes under our observation. It may also be pointed out that even those economists who swear by Economics as a positive science have not been able to keep within the limits set by themselves!

Under these circumstances we think we are entirely justified to say that Economics should be treated more as an Art than a Science. As a matter of fact, there is hardly any science which has not its practical or art aspect, and there is hardly any art which has not its scientific basis. Physics, Chemistry and even Mathematics, have their applied sides, and arts like music and painting, have their scientific counterparts. Yet we do not hesitate to call Physics and Chemistry, sciences, and music and painting art. We have only to see which side really predominates. Keeping this idea in mind we can confidently say that in Economics the art side predominates, and consequently, it should be treated more properly as an Art than a Science.

Pigou says that every science is both 'light giving' and 'fruit bearing', but in some the light giving aspect predominates while in others the fruit bearing aspect is more prominent. He calls Economics more a fruit bearing science than a light giving one. It is really a great concession that has been made by the leading economist of the Cambridge school, and the worthy successor of Marshall, to those who prefer to call Economics an art, rather than even a fruit bearing science.

In the preceding pages, while discussing the subject matter of Economics, it was pointed out that it was the sum total of the subject matters of its four component parts Household Economy, Business Economy, Political Economy and World Economy. Here it may be mentioned that in the first three component parts of Economics, the art aspect clearly preponderates. It is only in the fourth and the last part, that the science aspect is more prominent. Thus with reference to the subject matter of Economics as a whole we are justified to call it an art rather than a science.

Why Was Economics treated as a Science Before giving up this part of the discussion, it may not be out of place to write something about the point of view, and the state of mind, of those people who were responsible to a very great extent in emphasising the science aspect of Economics with so much force that it actually began to be regarded as a Science. Towards the end of the 18th and the beginning of the 19th century the followers of Adam Smith began to treat Economics as a Science. They began to give to the so called 'laws' of Economics almost a sacrosanct character. At this time the dominating political theory was that of non-interference by the State in the individual affairs of the subjects. People were 'left free' to make contracts with one another, and they were free to adopt any calling they pleased. The State was considered responsible only for the maintenance of peace and order within the State and for ensuring the observance of contracts entered into freely by different parties. (Under these circumstances economists did not consider it feasible to pass judgments on economic affairs, or lay down rules and precepts for guidance.)

Moreover, the rules that could be laid down, and maxims and precepts that could be formulated, would ultimately depend for their being carried out into effect upon State authorities. But when the functions of the State were so narrowly interpreted there could really be no occasion for carrying out any measure of economic reform. For a considerable time the policy of England remained that of non-interference in economic affairs. Free trade, as a national policy was a direct outcome of this general theory of state functions. Under all these conditions it was not at all surprising that Economics began to be regarded as a Science in England.

During and after the Great War the policy of non interference by the State in economic matters received a very rude shock in England and it was practically given up very soon after the

War, but Englishmen, both economists and non-economists, do not openly confess this. Others, specially in India, who take their cue mostly from English writers on the subject, cannot easily shake themselves free from their old and worn out moorings. Continental economists, however, have not hesitated to condemn that state of mind which makes Economics almost barren of fruitful results by treating it as a Science, and makes the State a mere spectator in the drama of the most important part of the life of man.

Utility of the study of Economics. The importance and the utility of the study of Economics can be looked at from two points of view, namely, the individual and the communal. From the individual point of view the study of economics is useful as it enables an individual to understand better, and appreciate more intelligently, the nature and significance of his money earning and money-spending activities as also that of others. He can easily discover his own errors of judgment, or conduct, with reference to the general principles discussed in the science, and the practical lines of policy recommended in the art of Economics. By carefully going through the subject he can certainly improve his position. If he is the head of a family, he can adopt such measures of economy that are mentioned and recommended in books on the subject, and so can better adjust his expenditure to income. Even if he has all the while been a successful head of his household, he will at least have the satisfaction of finding out that he has been conducting himself and his domestic affairs according to the standard methods recommended in standard books. If he is a business man, he can very easily know those methods of production which have proved most economical, and, therefore, very paying in the end. Whatever his business, he will not fail to derive very great benefit by a study of the most economical and efficient methods of production. A study of business economy explains to him the various intricacies of exchange; and with growing enlightenment there must be greater gain. The practical methods recommended for adoption for the scientific management of his business or farm or any other productive enterprise, cannot fail to bring him increased gains.

If he is a professional man, and produces not commodities but services of any sort, that is to say, if he is a doctor, or a lawyer, or a professor, the study of Economics will help him to increase his income by increasing his personal efficiency. He will know by its study something about those personal factors which have a considerable influence upon his efficiency. Thus every individual can hope to become a better and more efficient householder or business man, if he carefully goes through the principles of Economics and tries to adopt those methods of spending and earning money which are recommended in standard books on the subject.

Then there is the communal point of view, and the utility of the study of Economics from this standpoint also cannot be exaggerated. We have seen that Economics is concerned not only

with individual problems of economic life, but that it is also intimately concerned with social or communal problems. It studies not only the individual and private actions of an economic character, but it also takes due cognisance of those activities and actions which manifest themselves in joint actions or reactions of whole groups of individuals. While the problems of household management and of business organisation come under its perview it goes still further and studies and directs the intricate interrelation of various wealth-getting and wealth-using activities of the nation as a whole. It keeps a watchful eye on how these different activities affect the welfare of the community, as a whole, as distinguished from that of the individual or of a particular class. That is to say, the part of Economics, known as Political economy, is also one of its very important parts.

The real purpose of the study of Economics is to remove from the land every trace of poverty. Herein lies its chief utility and its main interest. It does not inculcate greed and undue regard for wealth, but it starts with a crusade against poverty. The positive pleasures of wealth begin only when the negative pains of poverty are removed. In India, at least, there can be no question of Economics making people more pleasure-loving and luxurious. When there are crores of human beings who have not enough for properly feeding and clothing themselves, the problem before Economics cannot be that of making the rich richer but it can certainly try to devise methods whereby the poor may become at least less poor. In order to achieve this object, Economics seeks the help and assistance of the state. Poverty of the masses can be removed only by state action. It is the function of the economist to suggest methods of economic and social reform; but it is only the state that can give them a practical shape.

Relation of Economics to other Sciences Science is a general term which means an organised or systematised body of knowledge; but there are different kinds of Sciences. There are, for example, Natural sciences, like Zoology, Botany, Physics and Chemistry; Mental sciences, like Psychology and Metaphysics; Intellectual sciences, like Mathematics and Logic; and Social sciences like Ethics, Politics etc. The relation of Economics with some of the more important branches of knowledge is indicated below.

Economics is a branch of Sociology, which is the Science of social phenomena. Men living and moving in society, develop different kinds of relations with one another, and so become connected, more or less intimately. These different kinds of social relations, which spring up between man and man, form the subject matter of the general science of society called Sociology. As pointed out above these relations are of different kinds. Each different kind of relation forms the exclusive subject matter of a different social science. Thus there are five social sciences as branches of Sociology, namely, (1) Ethics, which is

concerned with what men ought or ought not to do (2) Jurisprudence, which determines what men may or may not do (3) Economics, whose subject matter is the study of man's wants and efforts (money-spending and money-earning activities) (4) Politics, which discusses the relations between man and the State and (5) Eugenics, which is concerned with the development of man's racial characteristics and their significance to society. In the following pages the relation of Economics to the above named social sciences, as well as to other important sciences and branches of knowledge, will be discussed.

Economics and Sociology. Sociology being the general science of social relations between man and man, Economics is obviously its branch, as it studies those activities and relations between man and man which result in the earning and spending of income. We agree with Comte who said that Economics should not be studied in isolation, but that it should be studied along with other branches of Sociology. Man's social activities are so closely related to one another that it is well nigh impossible to study only one part of his activities to the entire exclusion of the others. As a matter of fact if it is intended to thoroughly study only one branch of his activities it is essential to be very well acquainted with his other activities also. If a working knowledge of his other activities is not acquired, it will be impossible to make a thorough study of a particular branch of his social activities. This attempt of earlier economists to study Economics almost in isolation with other branches of Sociology raised a good deal of controversy, and laid Economics open to the charge of being a dismal, abstract and positively injurious science. The study of Economics can be fruitful only when it is made with a full knowledge that it has to be modified, corrected and supplemented by the study of those other branches of Sociology with which it is so intimately connected. The relation of Economics to Sociology is that of a species to a genus, that of a daughter to a mother.

Economics and Ethics. The relation between the two is very close indeed. We must always look to the ethical side of an economic action. An economic activity which is of a doubtful ethical character should be discouraged at once. An economic measure which, while resulting in the increase of wealth, is likely to degrade the morals of the people, cannot be too strongly condemned. We have to remember that although the aim of Economics is to remove poverty, it is not to do so at the cost of morals. We not only want to become a rich nation, but we also want to remain great. Almost at every step it is the duty of an economist to see that he is not recommending any course of action which is likely to result in the moral degradation of the people for whose benefit he is working.

Immediately after the Industrial Revolution in England, the condition of working classes became intolerable. The workers were not well organised, while the employers were intoxicated

with their newly gained riches and power. In their mad desire to increase production, they did not mind making the workmen toil for even 14 hours a day! Children of tender ages were made to work, and women had to remain for long hours in mines along with men. All this was permitted under the belief that anything which resulted in the increase of wealth must be good! And even if not good it could not be the concern of an economist to raise any objection! It was this attitude towards Economics and Ethics that brought upon economists, the righteous indignation of people like Ruskin and Carlyle. As a matter of fact Economics and Ethics have sisterly relations with each other

Economics and Law or Jurisprudence. The relation between the two is very close and intimate. Economic activity of a healthy type is possible only when it is directed and controlled by just laws. Laws must always have an ethical basis. When the laws of the land are good, all activities of a social character proceed along right channels. The relation between Economics and law is clearly seen in labour and factory legislation of different countries of the world. If the laws are not just and unambiguous, economic activity cannot be really fruitful and cannot go very far. While the law of primogeniture in England has resulted in the concentration of land in a few hands, the Hindu and Muslim laws of inheritance in India have resulted in the minute subdivision and fragmentation of agricultural holdings. Economic conditions are accordingly very much influenced by legal enactments.

Economics and Politics Both being branches of the same stock, the relation is very intimate. When we remember that a very important component part of Economics is Political economy, we can at once understand the closeness and intimacy of this relation. The strength of a State depends largely on its economic organisation and resources; while economic activities are influenced a great deal by political actions and measures. With the increase in the functions of a state the relations have become still closer. In countries like Russia, Italy and Germany, the State has undertaken the task of guiding all important economic activities of the people. They are known as totalitarian states. The State itself cannot do without finances and here it has to depend upon Economics.

In India the relation between economic activities of the people and the State has been more intimate than in other European countries. Here the land and all that it stands for belong to the State. Railways and canals were constructed by the State, and it also undertook, from quite early times, the work of famine administration. In other economic fields also, as those of co-operation, agriculture and industries, the State has its own departments, and works them directly for the economic betterment of the people. But even this is not regarded as enough. In every Province of India there is a lack of planned economy to be organised under the State. Economics and politics are really inseparable from each other.

Economics and Eugenics. Man is the centre of all economic activities. He is the most important factor in the production of wealth. Upon his efficiency, and upon his qualities, mental and physical, depends the character of production and of every other economic activity. Man inhabiting different parts of the globe, has developed certain special characteristics which are due not only to the different environments, but also to the different racial characteristics. How efficiency of labour is affected by racial characteristics, and how man's behaviour in economic, as in other fields, is influenced by heredity, are questions which Eugenics tries to explain. On the other hand, on account of prolonged and continuous economic association of a particular type from one generation to another, certain peculiar traits have been observed to develop in certain classes. The Jew of the west as also of the east, has developed certain characteristics due to the economic activity of a particular type carried on through successive generations. Thus Economics and Eugenics are also related to each other; but in view of the slow progress of Eugenics as a social science, the points of contact between the two are not very many just at present.

Economics and Geography. Economics is related not only to other social sciences but is also closely related to many other sciences and arts. Its relation with Geography is very close. The physical features of a country play an important part in its economic development. Given the physical features and characteristics of any country, and the character of its population, it is not very difficult to form an approximately correct idea of the economic condition of the country. The climate of a region plays an important part in the formation of health and vigour of the people inhabiting it, and in conjunction with the characteristics of the soil determines its flora and fauna. All these factors play an important part in the economic development of every country. Why India is mainly an agricultural country, is in no small measure due to physical characteristics. It is impossible to acquire a sound knowledge of her economic position and conditions without an intimate knowledge of the geographic feature. A little knowledge of geology is also essential, especially of that branch of it which deals with the formation of the lower strata of the earth's surface. The science of mineralogy, which is playing an increasingly important part in human affairs, is also not devoid of interest for the economist.

Economics and Psychology. Economics is perhaps, not more closely related to any other science, physical or social, than it is to Psychology. Being a social science it studies and discusses man engaged in a particular activity; while Psychology studies the mental working of a man. At every step, therefore, Economics finds itself face to face with psychological problems. It has to take careful note of the psychology of man; only then can it advance a step further. It has not to form its own man-

and call him the 'economic man' as was done by some earlier economists; but it has to take man as he is, with all his idiosyncracies and peculiarities. It should, therefore, constantly test its conclusions with reference to the actual behaviour of man in the day to day affairs, and should give up forthwith any conclusion which is at variance with this observed behaviour. It has to take the whole man as he is, swayed by different motives at different times, and has to make allowances in its conclusions for all these deviations.

It will have to be admitted that with a fundamental change in the theory of Psychology, economic conclusions based on that theory will also have to be correspondingly modified. If the change is not fundamental, only a few words of further explanation might suffice to maintain intact the general applicability of economic doctrines based on a previous psychological theory. This point will be better grasped and appreciated as we proceed further in our study of the subject.

Economics and History.—Ever since the rise of Historical school in Germany, and even before that, the closeness of relation between Economics and History has been clearly established. A study of human institutions in the past throws an important light on the bearing of allied institutions in the present, and enables us to form our ideas about their future. The study of the history of economic institutions has helped in clarifying many issues which would otherwise have remained obscure. It enables us to form new theories of Economics and to criticise and modify the old ones. No economic problem can be thoroughly understood and discussed if its historical aspect has not received adequate consideration. The marshalling of historical facts, as of carefully collected figures, has a great utility in economic investigations. Their importance is happily on the increase and is likely to remain so in the future.

Economics and Mathematics —The relation between the two is not very close. Mathematics is an exact science, while Economics cannot be called even quantitative in its analysis, much less exact. It deals with economic phenomena only in their qualitative aspect. Attempts are, no doubt, being made to make Economics more quantitative. Diagrammatic representation of economic phenomena is growing in popularity, and mathematical symbols and formulæ have also begun to be used by certain mathematically minded economists. The one great advantage of the use of mathematics in Economics is that in this way it is possible to bring out and express the interdependence of economic phenomena, like price, costs, supply and demand. Walras and Pareto on the continent, Marshall and Edgeworth in England and Fisher and Wicksteed in America, have done much to popularise the mathematical method and so bring Economics and Mathematics closer together. It is doubtful, however, if Mathematics, can ever be of any great use for the study of economic problems.

Economics, however, receives greater assistance from Statistics. The use of statistical method in the investigation of economic phenomena is growing both in volume and importance. But this method is as much allied to history as to Mathematics.

General remarks on the relation of Economics to other sciences—In the foregoing pages the relation of Economics to different sciences and other branches of knowledge has been briefly discussed. The discussion, however brief, will show that Economics is related more or less closely to a number of very important subjects. It shows that in order to acquire an efficient knowledge, it is essential to be acquainted with those branches of knowledge also with which it is so closely and intimately connected. This might appear to be a formidable task, but whatever the case, it should be accomplished by those who want to play their part well. Of course, it is not necessary for an economist to have as thorough a knowledge of Geography and History, Law and Eugenics as the special votaries of these respective branches are expected to have; but he should try to have at least an elementary knowledge of these sciences. This will materially help him in understanding the problems of his own subject more thoroughly and well. In this connection we should remember the well known truism that one who is only an economist can never be a good economist.

Division of Economics While discussing the subject matter of Economics we divided the subject into four component parts, household economy, business economy, political economy and world economy. Let us further examine this division from a different point of view.

Consumption. Household economy deals primarily with the way in which income earned by the head of a family is spent by him for the satisfaction of his wants and those of his family. While discussing how money is spent over different items, household economy, as a branch of Economics, studies the wants of individuals and groups, and the various ways of satisfying them. So it studies, in its various aspects, that important branch of economic activity which is known as Consumption.

Production Business economy, the second component part of Economics, deals with the ways in which income is earned and can be earned still better. It implies the study of various types of businesses, and of various means that are adopted by people in earning their incomes. It thus includes a thorough study of that part of Economics which is known as Production. A manufacturer produces finished articles, an agriculturist produces raw materials; a carpenter and other artisans produce independently a finished article, a doctor, a teacher, a missionary, an actor, a singer and a domestic servant, all produce not commodities but services. The production of these services constitutes their business. They, too, have to work hard for earning an income. Then they satisfy their own wants and those of their family. All people, therefore, who are engaged in the production of

commodities or of services, either independently or in groups, are said to be engaged in production or in carrying on their business. Business economy, studies the activities of all these individuals and groups and so studies production in all its aspects.

Distribution. We are all familiar, with a modern factory where production of any sort is carried on. Different kinds of labour are necessary in carrying on this production. Some labourers are less skilled, others are more skilled. The proprietor of the factory supervises the work himself, but the money that he has invested in the business is perhaps not all his own. A part of it has been borrowed from some one else. Also the entire land, and the whole set of buildings, might belong to a different person. Finding the work of supervising general operations rather taxing, the proprietor of the factory may also have appointed a person to assist him in this task. This man is called a manager by other people as well as by the proprietor.

To find out the net income of the proprietor of this factory it is necessary to deduct from his gross income the share of many people. The owner of the land and the building will demand his rent; the person who lent a part of the capital to the proprietor will demand interest on his loan, all labourers will demand their stipulated wages, and the manager will demand his salary. Only after all these claims have been fully met, may the sum that remains behind be called net income of the proprietor of the business.

This clearly shows that where production is carried on in groups, a number of people having different interests have to be paid their respective shares before the person responsible for starting and carrying on production can finally appropriate any amount as his own share. This is called the sharing of the general or gross income of the business by different interests engaged in production. What is true of one business undertaking is true of another; except that in some businesses, the number or variety of claimants may not be as large as in another. Generally, there are four broad classes among which the gross income of a business is generally divided. They are landlords, capitalists, labourers and organisers (including enterprisers). This sharing of the gross income of a business among its various claimants is called Distribution.

From the above description it is clear that the process of modern production implies the process of distribution as mentioned above. Business economy, therefore, while discussing problems of production has also to discuss the problem of distribution.

Exchange But this is not all. The work of production is really not complete unless the product has been disposed off in the market. It is no doubt true that the landlord, the capitalist, the labourers and the manager will not like to wait for the settlement of their dues till such time that the product is sold in the market, and the proprietor of the factory gets cash in hand.

They will, as a matter of fact, demand, and the proprietor will have to pay, their dues when they fall due. But as far as the proprietor is concerned his task is not complete till the final disposal of the finished product. This disposal of the articles that have been produced implies what has been called Exchange of goods, or shortly Exchange. This means that production really implies two other important processes, namely distribution and exchange. We may then say that while household economy studies consumption, business economy studies production, distribution and exchange.

There are two other component parts of economics about which nothing has been said namely, Political economy and World economy. Political economy discusses the income and expenditure side of the State. It includes what is generally called public finance. The problems connected with the central and provincial budgets, the budgets of local bodies like municipalities and district boards. Public trusts and big corporations like those of Calcutta, Bombay and Madras, all come under the specific scope of Political economy. Various economic activities of the state in relation to its subjects, all legislation pertaining to matters of economic importance, trade unionism, socialism, labour and factory legislation have an intimate connection with Political economy.

Under the last division, that of World economy, are included such problems which have to do with more than one State at one and the same time. International Trade, foreign exchanges, world crises, world movements of gold and prices, international agreements of an economic character like the quota system or Imperial Preference etc are topics of special interest for World-economy.

Under the four types of economy, into which we have divided the subject, the following problems receive treatment namely, Consumption, Production, Distribution, Exchange, Public Finance and world movements of an economic character. The traditional division of Economics is also under identically the same heads, with the only difference that problems of world economy are discussed along with those of Political or Business economy as the case may be. In the future treatment of the subject we will discuss these divisions in the traditional order, Production, Distribution, Exchange, Consumption and Public Finance. The problems under World economy will be discussed along with other allied problems of Political or Business economy.

It may be mentioned that the division of Economics into various sections like Production, Distribution, Exchange and Consumption, is only arbitrary. The various processes are so interdependent upon one another that it is really very difficult to discuss one apart from the other. Yet for the sake of convenience of exposition some division becomes essential. It is only with this object in view that this division, however arbitrary, is generally recognised.

CHAPTER II.

METHODS OF ECONOMIC INVESTIGATION.

In the last chapter the nature and extent of the problems that have to be dealt with under Economics were indicated. The next step is to enumerate and discuss the methods that are generally adopted in coping with these problems.

Deductive Method. Two important methods are adopted in economic investigations, or, for the matter of that in all scientific investigations. They are deductive and inductive. A deductive method of arriving at any truth consists in *deriving* the truth latent and hidden in a more general truth. A classic example of this is arriving at the particular truth 'Ram Prasad is mortal' from the general truth 'All men are mortal'. The only thing that the investigator has to establish is that 'Ram Prasad is a man'. If that be so, the particular truth follows automatically from the general truth. It clearly means that in this whole process of deductive reasoning the first general proposition, "All men are mortal" is very important. The question may be asked, how this general proposition was arrived at. The answer to this will be given later on; suffice it to say at present that the method called deductive consists in arriving at a particular truth from a general truth.

Let us give another illustration of greater interest to one who is engaged in the study of Economics. If we say that all men try to avoid pain and like to get pleasure, we will not be far wrong, and will be enunciating a general principle. We can now deduce from this general truth a particular truth, which may be stated thus,—"All men like to buy at a low price and sell at a high price." The only thing we have to establish is that buying at a low price and selling at a high price is getting pleasure or satisfaction, and avoiding pain or dissatisfaction, which is not difficult to establish.

Here again the old question arises, how the general proposition, 'all men try to avoid pain and like to get pleasure' was arrived at. Again leaving this question to be answered at a later stage we can say that the essence of the deductive method lies in deriving a particular truth from a general one.

The earlier economists were so much enamoured of this method that they adopted it in their reasoning to the total exclusion of any other method. They took a few general principles, as the one mentioned above, as their starting points, and upon their foundations raised the entire superstructure of the science of Economics. Beginning with those general principles, they began to deduce particular truths, one from the other, in long chains of reasoning, and then, after arriving at certain results, put their own seal of approval and the sanction of the

Science of Economics upon them! Such particular conclusions sometimes proved to be right, but at other times they were found at variance with the general trend of events. When it so happened, the early economists would not admit any flaw in their own reasoning or assumption, but would advise, even coerce, other people to act and behave in the manner erroneously indicated by their own reasoning.

Now although it may be right that people like to buy cheap and like to sell dear, it may not be the case always. A person who habitually purchases only Indian made articles, would certainly prefer a costly home made article to a cheap foreign one. If someone comes forward and delivers a sermon to this person on his uneconomic behaviour would it not result in bringing Economics to disrepute? This was exactly what happened in England and other countries during the early 19th century, when economists regarded their deductions absolutely infallible, and did not take much note of peculiar circumstances. Sometimes the mistake lay in their method of reasoning, but very often the fault lay with their rigid adherence to the few general principles which they had taken as axiomatic truths. They forgot that it was almost impossible to keep a man tied to a particular notion under different circumstances and at different times. His views change with time and circumstance. If those engaged in the study of social subjects do not take careful note of this human tendency, and do not make constant allowance for it in their theories, they would not be able to do any great service to the science or humanity but may, on the other hand, cause it a great injury.

Something like this took place in England at the time when Economics was only in its infancy. The economists of that period did not take very great care in selecting their general principles. They reasoned carelessly and never tried to verify their conclusions with reference to actual facts. They persisted, in the advocacy of their doctrines, and declared their character to be absolute and universal. The result was that a serious reaction followed in other countries, Germany taking the lead. Even in England there appeared eminent men who denounced the teachings of Economics as preached and practised at that time.

Inductive Method. These reactionaries in Germany and elsewhere came out with a different method of economic investigation which was entirely the reverse of the former. This was known as the inductive method, and it consisted in going from particular to generals. Its function was to examine a large number of concrete facts or particular truths, and on the basis of these to arrive at a conclusion or even lay down a general proposition. A general proposition, thus laid down, could better serve the purpose of a first general proposition in a deductive reasoning, as it would be reached only after the close examination of a number of concrete cases. To take up the old illustrations, the inductive method would consist in first observing that A, B, C, D and so on, were

all dead, and that they were all men. Putting his faith in the uniformity of nature, an investigator could lay down the general proposition, 'All men are mortal.' This is going from particular truths to a general truth. Taking the other illustration, a man observes that out of, say one hundred men, whom he kept under his surveillance, ninety-five bought cheap, but five did not do so. Of these five, four were guided by patriotic motives, while the fifth was a fool. After this observation he wants to lay down a general proposition for the people of the locality he has observed and only for that particular period. If he is careful in his choice of words he will say something like this —When guided by economic considerations alone, men like to buy cheap, unless they are devoid of commonsense.

This method is undoubtedly more trustworthy, and is much less open to errors and objections; but it has its limitations. Such investigations shall have to be very frequent, because no one can say definitely what other motives may not have begun to come into play during the interval. Therefore although the conclusion arrived at by inductive method is certainly more trustworthy, it is applicable only within narrow limits of time and place.

As a result of the reaction against the deductive method, the virtues of the inductive method began to be extolled to the skies, and it began to be freely asserted that the deductive method had no utility whatsoever. But as always happens in such cases, the truth lay between these two extreme views. Both the deductive and the inductive methods have their strong and weak points. The problems that have to be discussed under Economics are so vast and so varied in character that both the methods can be advantageously used as occasion arises. The first general proposition of the deductive method must be established with very great care and after a great deal of observation. For this the inductive method has to be very carefully applied. After this, when by means of the deductive method the conclusion is reached, it must be again verified by means of observation. If the conclusion tallies with the observed facts it should be allowed to remain, but if it does not agree, it should be forthwith given up and new investigation set on foot.

The deductive method, therefore, should be considered as beginning with induction and also ending with induction. Thus hemmed in on all sides by induction, the deductive method can very well play its part. There are so many complicated problems of money and exchange, the incidence of tax and so on, that inductive method cannot always prove serviceable. On the other hand, when the task before the economist is the comparison of the economic conditions of a particular class of people in the same country, but at different times, or at the same time but in different countries, only the inductive method can be profitably employed.

Other Methods. The deductive and the inductive are the two chief methods that are used in economic investigations, that

is to say, in finding out economic facts as they are. There are other methods which have come into use, but they are subsidiary and allied, either to the one or to the other. The Mathematical method, for example, is used in collaboration with the deductive method, and consists in the use of mathematical symbols and formulae sometimes even of a higher and more complex nature, for the purpose of elucidating the more intricate problems of economic theory. In cases where several economic phenomena are *interdependent* upon one another, the use of mathematical equations is found helpful in bringing out clearly their mutual relations.

The historical method is used in conjunction with the inductive method. The concrete instances from which it is intended to arrive at a general conclusion, are taken from history, hence the method is called the historical method. It is really very fruitful of sound and authentic results but it cannot be called a new method.

The statistical method is again closely allied to the inductive method. While in the latter we collect a large number of concrete facts, and after subjecting them to close observation try to establish a general principle, in the statistical method we collect figures instead of facts. There is a special procedure, not only of collecting these figures but also of arranging and interpreting them with a view to draw conclusions. The only essential difference, therefore, between the two is that figures take the place of facts. On the basis of these figures, charts are drawn up and curves are traced, which enable the reader to see at a glance the general trend of phenomena for which figures are collected.

Scientific Method. Some economists have given the name of Scientific method to a combination of the deductive and the inductive methods. They have recommended four steps in the application of this joint method (1) Observation (2) Induction (3) Deduction (4) Verification. The first task of the scientific investigator is the observation of concrete facts. When a number of isolated facts have been brought together, the next work is to form a general principle on the basis of these observed facts. This is induction, the second step in the scientific method. When with the help, first of observation and then of induction, a general principle has been established the third step, deduction, begins. From the general principle so established, less general truths can be deduced, by means of the deductive method. But even this less general truth is again subjected to renewed observation. This second observation, which is the fourth and the last step in scientific method, is called Verification. If the conclusion reached after the third step is found correct, after renewed observation, it is said to have been verified, and the process of investigation is complete. Before verification a conclusion is only a hypothesis, after verification a hypothesis becomes a theory.

Nature of Economic laws. The unfortunate use of the word 'law' in economic literature has been the cause of a great deal of confusion in public mind and of serious controversy among economists themselves. Towards the end of the 18th and the beginning of the 19th century, some prominent economists of England began to treat Economics as a science. They changed its name from Political Economy to Economics, which sounded more like a science than an art, and fixed its scope as positive, which meant that it was concerned only with finding out and establishing facts of an economic nature and nothing else. Consistently with the foregoing point of view the methods of economic investigation recommended for use in Economics were those that were used for the same purpose in other sciences. Deductive and inductive methods were accordingly recommended for this purpose. Only one thing remained, and that was to give a characteristically scientific name to any conclusions arrived at, or any tendencies observed in the economic field. The word "law" fitted in very well in this scheme of things, hence economic conclusions or inferences drawn either by reasoning or observation began to be termed 'Laws of Economics'.

This point of view was adopted by other countries also. Very soon, however, objections began to be raised against the use of this term by thoughtful people everywhere, while the general public began to read meanings in these 'laws' which were never put into them by their 'discoverers'. This confusion in the public mind was not confined to the domain of ideas alone; it had a very sinister effect in practical life also. Manufacturers and other business men began to justify their actions based on selfishness and narrowmindedness, by light-heartedly quoting the 'laws' of Economics.

Feeling uncomfortable at the turn events had begun to take, later economists tried to undo the evil by carefully explaining the nature of an economic 'law', and by distinguishing it laboriously from a political or a moral law. They said that an economic law was of the nature of a scientific law. As the latter comes into operation only in the absence of counteracting forces, in the same way the former is applicable only when there are no other disturbing factors. In spite of the force of gravitation, they said the balloon does not fall to the ground, but rises up due to the presence of hydrogen which is lighter than air. Hydrogen is here the counteracting cause. In the same way, a man always likes to buy cheap except when he is actuated by a motive other than the economic. The presence of this other motive is in this case the disturbing element.

Marshall has devoted a whole chapter in his famous *Principles of Economics* in discussing the nature of economic laws. In his inimitable and scholarly style he has tried to clear the whole position. He says, ".....there are no laws of Economics which can be compared for precision with the law of gravitation.—They are to be compared with the laws of the tides, rather than with

the simple and exact law of gravitation." He explains that the laws of the tides are not always exact as a heavy downpour or a strong wind may affect them a great deal. So he compares the laws of Economics with the laws of the tides, which are scientific, no doubt, but are not always exact, as they, too, are subject to many disturbances.

Although the laws of the tides are disturbed by weather conditions, they are determined by such exact and unerring forces as those of the Sun and the Moon on water, atmosphere and the solid earth, giving rise to ocean tides, atmospheric tides and earth tides. Is there any unerring force guiding human conduct comparable to that of the Sun and the Moon on water? Probably not. Marshall himself says, "The actions of men are so various and uncertain that the best statement of tendencies which we can make in a science of human conduct, must needs be inexact and faulty." If that is so where is the necessity and utility of calling Economics a science, its scope positive, its methods deductive and inductive and its conclusions 'laws'?

We cannot extend this discussion any further at this stage, as we do not suppose that the reader is at all familiar with the many so called 'economic laws'. As we proceed further in our study of the subject, we will have occasion to deal with these 'laws' in their proper places. Suffice it to say, at this stage, that what are called 'economic laws' are nothing more than careful conclusions and inferences drawn with the help of reasoning or by the aid of observation of human and physical nature. All "economic laws" are based either on human Psychology or on the physical properties of matter. Those of the latter kind are more persistent in their tendencies, but those of the former category are not absolute and universal in character, for the simple reason that human nature is not constant and uniform. Many of such generalisations are only of limited application and have to be considerably modified from time to time and place to place, except a few which are more constant in their application.

Other points relating to the nature of economic laws will be discussed when such laws come up for discussion.

CHAPTER III

SOME IMPORTANT ECONOMIC TERMS.

One serious difficulty about the study of Economics is that every one belonging to any walk of life thinks that he is competent enough to express opinions on even the most complicated problems of Economics. The reason of this is not far to seek. Economics deals with something which is the close concern of every one and that too in a language which is that of the people. In its most complicated discussions it uses words and phrases which are used by every man in the street. It uses words like wealth, utility, value, production, consumption, capital, income and so on words which every one thinks he knows enough about.

Sciences, like Physics and Chemistry, have their own special terminology and nomenclature. No one dares to enter into their domain, unless he has made adequate preparation for the same. But that is not deemed to be necessary in the case of Economics, as the words and phrases are familiar enough to every one.¹

This serious drawback, however, can be turned to very good account if care is taken by economists to explain, and by the people to understand, the significance and meaning attached to each term. In many cases the difference in meaning is not *fundamental*, except that a particular definiteness is given which was not attached to it before. But even this slight difference in meaning here and emphasis there, has been responsible for a great deal of confusion. In the following pages some of the important terms which are liable to be misunderstood will be explained. A little time and care devoted at this stage will save a great deal of trouble and misunderstanding in future.

Utility. The common meaning attached to this term is usefulness, or benefit, or advantage of any kind. A thing is said to possess utility, if it is useful, beneficial or advantageous. To the extent that it is more useful, or beneficial, it is said to possess greater utility. The meaning is correct enough, but only one caution is necessary; whether a thing is useful or beneficial or advantageous should be left to the particular individual to determine. One person may not agree with the tastes and inclinations of the other. So for an object to possess utility it must be *desired*, it need not be *desirable*. What one man considers useful, the other may regard injurious. An article for which one person is prepared to pay a high price may be of such a nature that another man may not mind even spending something to get rid of it. One man, for example, spends money to get meat from the market, another man dislikes it to such an extent that he will risk his life rather than take it. A bottle of wine gives a

great deal of utility to the drunkard—at least he thinks that it gives him utility—, but a temperance reformer will only pity such a person.

As pointed out above, a thing may be desirable to one individual, but it may not be so to another. Whether it should be desired or not, is a different question, which, no doubt, comes within the scope of Economics, as we have understood it but, before suggesting what should be desired and what should not be, it is necessary to further analyse the notion of utility. The utility of an article may be defined as its capacity, supposed or real, to satisfy a want.

The conditional phrase, supposed or real, requires further elucidation. When a person purchases a certain thing, he does it because he *thinks* that it possesses the capacity of satisfying a specific want which he is just then feeling. He only *thinks*, but cannot be *sure*, at least not always. How often does it happen that a certain thing purchased in high spirits and in high expectations, *does not come up to the mark*? A dark-skinned student purchases a lotion from an itinerant seller on being assured that a few applications of the lotion will make his skin very fair. He applies it one night, but finds still darker patches on his face the next morning! When he bought the phial, he *thought* it would give him a great deal of utility. Instead it gave him disutility or dissatisfaction.

Value. Value is the worth of one thing in terms of another. It needs comparison, and, therefore, requires two or more commodities. It is a relative term, and means briefly 'power in exchange'. A thing is said to possess high value, if it can get in exchange for itself a large amount, or large number, of other commodities. Diamonds possess, in this sense, high value, so do gold and silver, though not to the same extent.

The two notions, utility and value, have, consequently, different meanings. A thing may possess utility, but it may not have any value at all. Water although possessing very great utility, has practically no value. After spending a very little effort or money, water can be drawn out of a well, or can be fetched from a river, if it is nearby, or it can be had from the municipal pipe. But in deserts, and sometimes in tracts which are susceptible to water famines, it begins to command a high value. The same may happen in the case of air, when it has to be supplied to the diver in the bottom of the sea. On the other hand, commodities commanding high values, like diamonds and rubies, gold and silver, do not possess a very great amount of utility. If the world is deprived of diamonds and such other things, it will not be much worse off. Iron and salt, coal, cotton and grain, are not very valuable, but they possess a great amount of utility. It appears that nature has supplied us in abundance with those commodities which are of very great utility to us, and upon which our very lives depend. Air and water, heat and light have been supplied freely and are, therefore, called 'free-goods' i.e. those desirable things to obtain

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which we need not put up any effort. Also it is not necessary to economise in the use of such things as their supply is unlimited. Those things, however, which are not so unlimited in quantity need effort before they can be procured; and when we succeed in procuring them we also need to economise in regard to them. Such things are called economic goods, and possess value.

It should not be understood, however, that there is no relation whatever between utility and value. On the other hand it is very close. In the first place, there can be no value without utility. If a thing does not possess utility, nobody would like to give anything in exchange for it, and so it will have no value, but as pointed out above, there can certainly be utility without value, as in the case of air, water etc. In the second place, in a very large majority of cases, the value of a thing is affected a great deal by its utility. The relation between value and utility will be discussed in full details later on.

Value is then a relation between two articles. If in exchange for a table we can get two chairs, we say that the value of a table is twice as much as that of a chair; and that the value of a chair is half that of the table. In this way we may express the value of any one article in terms of any other article, or a number of articles. This kind of relation between one article and the other is quite common even today in Indian villages. A farmer who grows, say wheat, gets in exchange for it many articles of daily use, like earthen pots from the potmaker, small iron implements from the black-smith, petty wooden things from the village carpenter, and almost every kind of service from the village artisans and servants. The sweeper, the barber, the chaukidar, the weaver, the washerman, and so many others, are paid for their services at the harvesting time by so much wheat or cotton or gur or all combined.

Price In towns and cities of India, this type of exchange which is called barter, has practically disappeared. In every transaction, rupees, annas and pies, now figure prominently. The values of different articles are now measured not in terms of other commodities, but in terms of money. The value of an article when expressed in terms of money is called price. In villages also money has begun to play an important part. Rents which used to be paid formerly in the form of agricultural produce have now begun to be demanded and paid in terms of money.

Wealth The most important term in Economics is wealth, as at one time it formed the subject matter of the Science. Economics was defined as the Science of wealth by earlier economists. It is now defined as a science having as its subject matter a complete study of wealth and a partial study of man. The importance and significance of the term is proved by the two definitions given above. Wealth is a term with which every one, even the poorest, must be quite familiar; because, in its essence, it consists of those things which possess value.

We have already explained the term value, and also given its definition. If we pay a little more attention to this word we will very easily understand the true and correct meaning of the term wealth. We have said that wealth consists of those material things which possess value. Now for anything to have value, two attributes are essential. The first is that it must possess utility, without which it cannot have any value. This means that for anything to be called wealth, the attribute of utility is essential. Wealth, therefore, must consist of all useful and desirable things. But there is also the second attribute of value, and, consequently, of wealth, which is that of transferability. Value, we said, was the power in exchange possessed by a certain commodity. This clearly implies transferability. A thing which possesses value must also be transferable; otherwise it cannot be given or bought in exchange. Thus, wealth consists of those things which are useful and transferable; that is to say, can be bought and sold. As a matter of fact, only those things are bought and sold that are useful. No body would like to buy a thing which is useless. So it is enough to say that wealth consists of those things which can be bought and sold, or, when there is no money, can be bartered with one another.

So far we have discussed only individual wealth, viz. wealth as conceived by an individual. But there are other senses also in which this term is used. The chaupal in village is not the wealth of any single individual; but it is, undoubtedly, the wealth of the whole village. It may be called, therefore, collective wealth. The same is the case with municipal parks, grounds and buildings; provincial roads, public works, and so on. They all come under collective wealth. In some cases, a figurative use is made of the term when the Ganges and the Himalayas are called national wealth of India. Sometimes qualities of head and heart which a person possesses are referred to as his personal wealth, to distinguish it from individual wealth, as discussed above.

A little further examination is necessary before we close the discussion. The Sun and the Moon are useful, but they cannot be bought and sold; so they are not wealth. Air, and water (near a river), are useful, but no one cares to buy and sell them as they are enough and to spare. So they are not wealth. Health and skill are very useful, but they cannot be bought and sold in the ordinary way. So they, too, are not wealth, though they may be regarded as the source of wealth and sometimes better than wealth. Take the case of a musician. He gives us an exhibition of his skill by singing a few songs, and we give him, say, Rs. 50, on a marriage or other occasion. Is this not a transfer, and so is not the skill of the musician, being both useful and transferable, really wealth? A little thought will convince the reader that it is not so. When a musician gives a few songs in exchange for a few rupees, we certainly give him Rupees, but what does he really give us? It is no transfer, as a matter of fact. Transfer implies both a gain and a loss. In the

case under discussion, the skill of the musician remains intact. He does not lose anything. If possible, he gains something by renewed practice in singing. The same is the case with a professor. He delivers lectures in the college, and is paid for this service by the Managing Committee of the College. He, however, does not lose anything, but only becomes more proficient the larger number of times he delivers lectures. We need not extend the point further. Such cases are not cases of transfer. So we are justified in saying that wealth consists of those things which possess value, or more explicitly, it consists of those things which possess utility and transferability.

Wealth and Welfare It will not be out of place to mention here briefly the relation between wealth and welfare. The earlier economists laid very great stress upon wealth, and very little on man, who actually produced and consumed it. They were not very careful in establishing a relation between wealth and welfare in general. This attitude brought upon them the indignation of people like Ruskin and Carlyle.

The word wealth is etymologically derived from 'weal' and so has a close connection with welfare. In actual life also we find a close relation between the two. While wealth is regarded as a means, the welfare of a nation is rightly regarded as the end. In the production of wealth and other allied activities, the welfare of individuals should not be allowed to be sacrificed. On the other hand, the aim of every activity in connection with wealth—economic activity—should be to increase the total welfare of nation, and of the individuals composing it. If the interests of certain individuals collide with those of the nation, the former should be disregarded in order to safeguard the latter.

Land. By land we ordinarily mean the hard portion of the earth's surface as distinguished from water, but in Economics this word is used in a greatly extended sense. By land we mean not only the *terra firma*, the hard surface of the earth, but the whole of that portion of the planet which has been appropriated or is appropriable. It thus includes seas and oceans, which have been appropriated for fisheries or navigation; hills, mountains, forests, water falls, wind power; mines and springs below the surface; ocean beds for oyster and pearl fisheries; also the heat and light of the sun, the moon and other heavenly bodies, together with the annual rainfall which falls on the earth's surface in different seasons. In other words, land in Economics is synonymous with all that nature provides, other than man. All birds and beasts, reptiles and water animals, are also included under the term. It is, therefore usual to apply the term nature in place of land where this extended meaning is sought to be given.

Land is a free gift of Nature. It came into existence long—long before man was born. But when once born, man began to multiply, and exploit for his purpose the land where he was born. He began to appropriate certain portions of it for his own use.

When his progeny increased, family fights ensued. Those who were vanquished, had to leave one part and settle in another. In this way, in the course of ages, the entire habitable portion of the earth's surface was appropriated by man. But he still continues to grow, while the land, abundant in the beginning to an extent that it was as free to mankind as air is now, has begun to grow scarce. Although still a free gift of Nature, it is not unlimited in quantity like air. It is strictly limited, and can never increase. This has created many complicated problems, which we will have occasion to discuss later on. It can neither go out of existence, nor can it increase. So we find that it has three characteristics: (1) It is a free gift of nature, (2) It is imperishable and (3) It is limited in quantity. These three characteristics are important as they distinguish it from Capital.

Labour. In ordinary language it means exertion or toil of the physical sort, and is associated, generally, with manual labour. That is not, however, the complete sense in which the word is used in Economics. It means much more than that. It means any exertion, physical or mental, which is undertaken partly or wholly in the expectation of monetary gain. So even those who have to work with their brains can be called labourers. Lawyers, doctors, professors, executive and judicial officers, statesmen, viceroys, ministers and prime ministers, are all labourers in this sense, as their exertion is mental, and is undertaken in the expectation of monetary gain. While that labour which is not so undertaken, but which has for its object pleasure or satisfaction of any kind, cannot be called economic labour. A tennis player labouring hard to win a set, cannot be said to be putting forth labour in the economic sense. The same is true of the labour of an individual who works day and night in an election contest on behalf of a public organisation for some candidate. He works hard, of course, both physically and mentally, but as he does it without any expectation of monetary gain for himself, directly or indirectly, it cannot be called economic labour.

It should not be understood, however, that Economics does not attach any value to this sort of work if done by an individual. It cannot, however, be called economic labour, though it may be regarded as very laudable. The activities and labours of numerous learned Sadhus and Sanyasis, in the past and at present, cannot be called economic labour, but no reflection of any kind is meant by this non-inclusion.

Labour and labourer, however, are also used in a narrow sense, when they mean farm, factory, or domestic or generally speaking, manual labour or labourer, receiving remuneration in the form of daily, weekly or even monthly wages. This is the concession made by Economics to common usage of the term.

Capital. We know something about wealth. It consists of all those things which are useful and transferable, or, to put it in other words, it consists of those things which can be bought and sold. Only those things are bought and sold which are

meant to be used or consumed, now or hereafter. Wealth may, therefore, also be said to consist of all those things which are meant to be used or consumed now or hereafter. This use or consumption of wealth is possible in any of the two ways. (1) It may be used or consumed for deriving satisfaction directly out of it, as in the case of articles of food, clothing, shelter, furniture and so on. (2) It may also be used for the production of articles of the first category, as in the case of tools, implements, machines, factory and farm buildings etc.

Articles belonging to both classes come under the category of wealth, but those under (1) constitute the class known as consumption wealth, while those under (2) constitute the class known as production wealth. Another name for production wealth is Capital. It may, therefore, be defined as that wealth which is used for the production of further wealth.

It is not always easy to distinguish between a thing which is wealth and that which is capital. Within the broad limits set above the distinction is not difficult. Everyone, for example, will readily say that loaves of bread and other things that we eat; articles of dress and of personal decoration; articles of furniture in the house; horses, conveyances, bicycles etc., are all wealth. Also that ploughs and other agricultural implements;— steam engines used in factories and other plants and machineries; raw material like cotton, wood or sugarcane, to be used for making finished articles; seed, manure and water to be used for growing crops, are all capital. But there are certain things on the border line, and others of a doubtful nature which make the distinction sometimes difficult. A motor car with a Rais, for example, should be regarded as wealth, while that with a busy doctor, capital. Again, a motor car with a busy doctor should be regarded as being used as capital when he goes out on visits; but as wealth when he goes out for an evening drive or goes to a neighbouring big city on some private business with or without his family. A house owned by a person but also occupied by him is wealth; while if he lets it out to somebody else on rent, it becomes capital. The same is true of every article. A chair in a room is wealth as long as it is used by the owner; but if it is given out on hire to somebody, it becomes capital. A certain amount of money in one's cash box, if it is going to be used in connection with domestic expenditure, is wealth; but if it is going to be used in connection with one's productive business it becomes capital. Sometimes the same thing may be wealth to one, and capital to the other or others, at the same time and place. One man is going in a Railway train, say, from Meerut to Delhi, for purchasing articles of merchandise for his shop. He regards the Railway as something which helps him in the production of wealth, and so for him it is of the nature of capital (though not exclusively his). Another man is going to see a Cinema film or a hockey match. The Railway helps him in the consumption of wealth, and so it is to him of the nature of wealth [though not exclusively his].

Although cases cited above are quite interesting, and serve the purpose of a little mental exercise, they are not of very great importance in practical affairs. The division is broad and clear enough, and doubtful cases, if they occur, can be very well decided, this way or that, without producing any appreciable effect in the general trend or argument. They are, however, of very great importance to the theorist. There being a continuity in economic, as in other affairs, the most important, and, side by side with this, the most instructive, cases are brought under observation and discussion only when one class is about to merge in to the other. A number of such cases will occur as we proceed along, and they will then be carefully and minutely discussed in their respective places.

Income. This is another difficult term which is highly ambiguous in its meaning, and so requires a very careful handling. The ordinary meaning of income is 'that which comes in' or briefly "incomings". The difficulty, however, arises in deciding upon those "incomings" which have to be treated as constituents of income.

The best method of giving a good description and, if possible, a satisfactory definition of income seems to be to take up one or two definitions given by other economists, and then, by discussing and criticising them, discover, if possible, a better one. Dr. P. Basu in his 'Economic Principles for Indian Readers' writes 'Income is that which is derived from wealth by its owner, whether it is used as consumption wealth or capital'. He means by this that income consists of satisfactions—not goods—that a man derives from his possessions. The satisfaction that a professor draws from his salary—not the salary itself—together with other satisfaction that he derives from his chairs and tables, clocks and radio, articles of food and clothing, and so on, from his total accumulated or invested wealth, constitutes his income.

This use of the term income appears to be very wide as it also takes into consideration those intangible elements which are left out of account by economists on account of their vagueness and difficulty of measurement.

Another definition which has been given by Carver appears to go to the other extreme. He simply writes—"Income is the price received for services". In the first place this definition confines income to money income (price) alone, which makes the definition inadequate. In the second place it confines it to money earnings received for services, leaving a large field of 'unearned incomes' uncovered.

Marshall does not give any definition in his 'Principles of Economics'. Only at one place he writes "... Income consists chiefly of commodities in a form to give pleasure directly". From this one thing is obvious, that Marshall does not regard income as consisting of satisfactions merely. In his 'Principles', however, he uses income mostly in the sense of money earnings.

A definition given in Falgrave's Dictionary of Political Economy and repeated in Encyclopaedia Britannica runs thus — "Income is the wealth measured in money which is at the disposal of an individual or community, per year or other unit of time".

The above definition gives a nearly correct idea of income which may be acceptable, but the phrase 'measured in money' raises difficulties. We are concerned not only with the western world but especially with our own country. We know that in India about 90 p. c. people live in villages. We also know that although money economy is gradually making its headway in the villages also, yet, a large portion of the income of a village cultivator, or any village resident, does not consist of money income but consists of commodities other than money. So for India, at least, the idea of income should not be confined to money income alone. In Europe and America there is very little income which is not in the form of money; but that is not so in India at present, and is not likely to be so for a considerable time in the future. It would be well, therefore, to define income as, "that amount of fresh wealth which is available to an individual or a community for utilisation per year or other unit of time". The word 'fresh' has been added as it fits in with the idea of a period, per year or per month. The words 'available for utilisation' perhaps better convey the real purpose of income than the colourless phrase 'at the disposal of' but this is not at all a material change. The phrase "measured in terms of money" has been removed. The definition now worded is expected to be more realistic and in conformity with conditions prevailing in a major part of the country. It can also fit in with conditions in the Western World.

The income of a village cultivator, for instance, does not consist only of that amount of money which he receives after selling his crop. It is a well-known fact that an Indian cultivator does not grow his crop only for the purpose of sale, but also for his own consumption. It is very unfortunate that many cultivators now find themselves compelled to sell their produce to outsiders for a money price, but later on to purchase at a higher price some part of it for their own consumption. In spite of this they grow a number of minor products on their farms which are not exchanged. They keep cows and buffaloes almost without any great extra expense, and derive a good deal of income through them, not only by selling ghee and milk, but also by consuming mattha, curd, butter and cream; by using their cattle droppings as manure or fuel, by growing vegetables in a small part of their plot for domestic consumption, by growing cotton, not for sale but for domestic consumption as in stuffing quilts and in spinning yarn, which may be given to the village weaver for being woven into a *than* of cloth, his wages being paid in so much grain at the harvesting time. Instances may be multiplied to show that at least for

rural India, even to-day, the notion of money income is not realistic and very helpful. For that part of India which consists of big cities and towns it holds true and is certainly applicable. The definition of income as given above includes such cases, though it does not exclude those where income in the form of commodities and services is more important than that in the form of money.

Production. It is that economic activity which results in the addition of utilities. It is impossible to produce matter in the sense of creating it. It is equally impossible to produce utility in the same sense. No one can make a useful thing out of that which is quite useless. The very fact that something useful can be made out of it, will make that which is now useless, useful, though even slightly. Molasses near Sugar Cane factories are, at present, not only useless and valueless, but are positively a nuisance on account of the space they occupy and the offensive smell they spread. But the moment any definite scheme to utilise them proves successful, they will begin to fetch a price.

If we cannot create matter or utility, we can certainly increase the latter by adopting various ways and means. A log of wood, which possesses very little value when it is in its original state, can be made very useful and serviceable, and so much more valuable, by subjecting it to various processes of carpentry. When it is converted into a table, a great amount of utility is added to it. This is one form of production which consists in making a thing more useful by changing its form. This is also called giving it a form utility.

But a table even when completely constructed in a factory close to a forest may not serve any useful purpose if it is not removed from the factory, and transported to a place where it is needed. For this purpose certain transporting agencies are necessary which may perform the service of removing it from the place where it is less needed to a place where it is more needed. Consequently all agencies, or other individuals who perform this important service, also play an important part in making it more useful, by changing its place of consumption and give it place utility.

Yet again, certain big firms are needed that might store such things as tables and chairs, and other articles of furniture, as they are brought direct from the factory. They keep a number of things in stock till the time that they are actually needed by the consumers. So they, too, play an important part in the life history of the table and help in making it more useful by readily offering it for sale when it is needed by consumers. They give what is called 'time utility,' in as much as, they keep it in stock till such time that it is actually needed.

To conclude, then, the utility of a thing can be increased either by changing or modifying its form or by changing its place of consumption, or by changing the time of consumption. All

individuals and agencies that take any part in the three activities mentioned above are said to be engaged in production. Production may, therefore, be defined as that branch of economic activity which has for its object the addition of utilities or values.

Production of Services Production is not confined to a consideration of commodities only, but is equally concerned with services. Some services are skilled, others less skilled. Production, as a department of Business Economy, has to do with both kinds of services. In the matter of commodities the function of production is to increase their utilities by modifying the form, place, and changing the time of consumption, or in other words by increasing form, place and time utilities. In connection with services, its function is to increase their utilities by making them more efficient mentally morally and physically. This aspect of production will receive greater attention when we discuss labour as one of its factors

Consumption. Consumption means deriving advantage out of commodities or services. While production is a process by which utilities are added to commodities and services consumption is a process by which these utilities are enjoyed. In the course of consumption of commodities, their utilities can be exhausted during a definite period, long or short, but in the matter of services, the utilities are enjoyed in a constant stream without causing any diminution.

In Economics, consumption means both consuming and using. We are, generally, said to consume a thing when, by our act, the form of the thing consumed undergoes a drastic change, or when it totally disappears from view. When we eat and drink substances we are generally understood to have consumed them. But we certainly do not consume, in this sense, articles of clothing, furniture etc. We only use them. It means that by our action they do not disappear altogether or are not mutilated out of all recognition. They only wear out by constant use. The chair and shoe wear out, but their form is not suddenly changed. Such commodities are said to be used.

There are yet other commodities which are neither consumed, nor used in the above sense; none the less they are commonly regarded as articles of consumption in the same way as those in the two categories mentioned above. Such are pictures, paintings, statues and other articles of decoration which are not even touched by hands except for the purposes of cleaning. Their consumption means only our casting a glance at them, and nothing more. It will be violence of language if we say that we consume or use such articles. We do neither, we only enjoy them. This is all that consumption means in their case. They, too, wear out as other things do, but not by the usual process of consumption or use. It is time—the passage of time—which is the greatest consumer world has ever seen! They are really consumed by time, we only enjoy their presence or sight.

In this last category are also included services of human beings. We derive advantage out of the services of lawyers, doctors, teachers, preachers, actors, singers and a host of other public, professional or private servants. We pay for their services as we pay for commodities. We derive advantage out of their respective services in different ways. Some give us protection, some relief, some enlightenment, some pleasure and enjoyment and so on. But we leave them as we find them. We do not, by our utilisation of their services, cause any wear or tear in them. It is caused, as in the case of paintings lying in drawing rooms, by the passage of time.

So this is what we understand by consumption. It may be called the reverse process of production. It has assumed very great importance in modern times. Earlier economists did not even recognise it as a separate, or even an important branch of their Science. But modern economists have given it the rightful place it deserved. In the study of Economics, consumption should really form the first branch because we produce only for the purpose of consuming. Production is the means, while consumption is the end of economic activity. But agreeing with the view that there must be something before we actually begin to consume it, we will discuss production first, and consumption last.

Money. Keynes gives a very good definition of money in his book, 'A Treatise on Money' in the following words, "Money is that by delivery of which debt-contracts and price-contracts are discharged, and in the shape of which a store of general purchasing power is held." In simpler words, "money is that commodity which enables a person to get in exchange for it articles of daily use, pay up his debt, and, by keeping it in store, acquire a right to get various articles in future." The first attribute of money is the most important, namely, that it enables one to get other articles in exchange. It implies that this commodity must be acceptable in exchange to every body. If it is not so, he will not get other articles in exchange for it. It also implies that the commodity should be such that every one is prepared to value his own commodity in terms of it. Other attributes mentioned in the definition are derived from the first attribute. Money has thus four functions to perform (1) It acts as a medium of exchange (2) It acts as a measure of value (3) It is used in making future payments and (4) It is hoarded or stored.

When a commodity begins to be accepted in general exchanges, and when other commodities begin to be measured in term of this one commodity, it is obvious that future payments will also be made and it will also be stored, if needed.

Different commodities have served the above purposes in different times and in different countries; but at present gold and silver, with their paper substitutes—are commonly used. In India we find the Rupee, as the standard or principal coin, used for all purposes mentioned above. It is used, with its

utilising them and with the help of the knowledge so acquired again sets himself to the task of finding out still greater and richer treasures.

It will not be correct to say that man has made nature his slave. The phrase is meaningless. Man has no more power over nature now after lapse of so much time, and after the expenditure of so much effort, than he had in the very beginning. The only difference is that then he did not know much while now he knows enough about the ways and methods in which nature works. This is the secret of all sciences and herein lies man's progress. He cannot alter by an iota the course that nature usually takes. If he can go up in a balloon against the force of gravitation, it is possible only by his knowledge of the natural properties of hydrogen and warm air. In spite of the much vaunted human mastery over nature, man is incapable of keeping in check the wild elements and forces of nature. He is still like an atom before the mighty Himalayas if he sets himself *against* nature. In co-ordination with Land or Nature, Labour plays a very important part and all material progress, has been achieved by man after applying his labour to land.

CAPITAL.

Nature and man are the two main factors of production, but it is evident that without some sort of capital it was almost impossible for man to have produced anything. He could certainly climb up a tree, and pick off a few fruits and satisfy his hunger, or he could kill and remove the skin of an animal by means of a sharpened piece of stone, but even the sharpened piece of stone served the purpose of capital as he must have spent some effort in sharpening it in order to use it in a future operation. He could not kill an animal without bows and arrows which undoubtedly became his capital for that purpose. So we see that man cannot go even a few steps further in the production of wealth unless he is aided in this operation by certain useful things which he makes in the past definitely for this purpose. The progress of man is really limited by the amount of capital in his possession which assists him in his productive activities. It is impossible for a man to raise a crop without seed, a seed bed, manure, water, and a few implements, which help him in preparing the seed-bed and performing other agricultural operations. All these things require an effort on his part to produce them and then a certain amount of waiting which is necessary before he can derive any benefit out of them. He can if he likes consume the seed by turning it into flour and then using it as a loaf of bread, but he does not decide to do so. He gives up the idea of consuming the seed and deriving satisfaction directly out of it. On the contrary he decides to use it as seed, which, he hopes, will enable him to grow a crop, several times more plentiful than the seed itself and thus uses it not for purposes of direct consumption but for those of production. The more efficient, the more

durable, and the more numerous such aids to production of wealth, the greater would be his production of wealth. If much care is not bestowed upon the preparation of the seed-bed; if the seed is not selected with great care, if manure is not given in requisite quantity and of desired quality, if water is not given to the crops whenever it is needed, and if different agricultural operations are not performed at the right time, in a proper manner and with the help of efficient tools, the yield of the crop cannot be satisfactory. Herein lies the difference between Indian and European or American cultivation. In India the amount of capital and care devoted in the raising of a crop is very small as compared to that in Europe and America. The result is that in spite of the natural fertility of the soil and the individual skill of the cultivator, the yield of crop per acre is much less in this country than in other advanced countries of the world.

As in agriculture, so in industry, the amount of capital that is used makes a large difference between the industrial production of India and other countries of the world. Capital therefore is a very important factor in the production of wealth. Capital is nothing but the result of saving which means that if a man consumes less than what he produces, and so saves something, he can utilise this saving in such a form that might help him in his further productive activities. A cultivator can purchase a plough only when he has got a number of rupees with him whereby to purchase it. If he has been spending more than, or even equal to, his earnings he can never find himself in a position to purchase a plough, and without it he cannot carry on his agricultural activities. A plough is only a very simple implement of cultivation. There are now-a-days in the market a number and variety of agricultural implements which are more complex in their working, more efficient in their results but also more expensive to obtain. It is necessary therefore that Indian cultivators, or, for the matter of that, all those engaged in productive activities, begin to acquire more capital. This is possible only by reduced expenditure and enhanced incomes towards which they should devote their attention.

India has been left very far behind by the rest of world in the matter of capital. Our land is not inferior even to some of the best lands in the world. Our labour force, if we look merely to numbers, is several times that of even the most advanced country of Europe or America, but in the matter of capital we lag very far behind. Europe and America have made very great progress in the matter of capital especially after the Industrial Revolution in England towards the end of the 18th century. India is even to-day where she was in the 18th century, especially in the matter of agricultural capital. It has thus fallen about hundred and fifty years behind Europe and America. If our progress henceforward is even equal to that of other countries we will always have to remain hundred and fifty years behind them. We have to make much leeway, so let us beware!

ORGANISATION

When labour aided with capital is applied to land for the production of wealth the elementary conditions of production are all satisfied. But as labour alone cannot go very far in the production of wealth without the help of capital, in the same way even labour and capital cannot go very far without that special type of labour which consists not so much in *performing* ordinary operations as in *directing* the whole operation. Organisation consists of a number of different operations. A cultivator, for example, has (1) to bring together the various factors of production in the right proportion, (2) to start and then finish the actual work of production, (3) to dispose of the yield of his crop and (4) to take into consideration the monetary position of all these operations and finally close the various accounts. So it is evident that even a peasant proprietor or an ordinary cultivator has to look to the organisation of his business; and so he is an organiser to that extent. But the importance of organisation, as a separate factor of production, began to be recognised only after the Industrial Revolution when the problems of production became more complex. Labour had already been splitted up according to the principle of division of labour. Not only different individuals were assigned different tasks according to their respective aptitudes, but different types of machines had also been invented for performing different mechanical operations. It was not only division of labour but also, and more important still, a division or specialization of machinery. Before the Industrial Revolution the problem of sale was not so important, because the extent of the market was not so wide; but after the development in the means of communication and transportation the problem of sale also became very complex. Goods had to be produced far in advance of their demand. Also the area from which raw materials were obtained grew very wide. There was in addition the new problem of labour *versus* capital which had begun to attract notice. Large numbers of labourers had to be employed and had to be paid their weekly or daily wages. [Competition among producers, not only of the same country, but of different countries, was becoming intense. Under these conditions it was not easy for an ordinary man to handle such vast problems of production with that efficiency which the occasion and time demanded.]

It was at this stage that organisation began to be recognised as a separate and independent factor of production. The problems of industry, both in the agricultural and industrial spheres, had assumed an importance which demanded for its successful handling not the ordinary labour of a cultivator or a tradesman, or a small manufacturer, but that of an able man who had devoted considerable time and attention to the study of these knotty subjects and had specialized himself in this particular task. With the growth of joint stock business the need for such organisers became more pressing, and the distinction between labour, as ordinarily understood, and organisation became more marked.

Organisation includes two important functions, that of management, and that of enterprise or risk taking. Sometimes it happens that the proprietor of a business is also its manager. He manages it himself and is thus directly responsible for its success or failure. This is a case with almost all of our agriculturists and most of our tradesmen. Our cultivators have to manage their businesses to the best of their ability and are ultimately responsible for successes or failures. They are therefore both managers and enterprisers of their business. The same is the case with most of our tradesmen. They not only sit on their shops and look after the sales but they also invest their own money in the trade or calling. They too are both managers and enterprisers.

The case of manufacturing establishments on a small scale is similar to that of our cultivators or tradesmen; but manufacturing businesses carried on a large scale and on a joint stock basis make a distinction between management and risk-taking. There are highly paid managers of certain big manufacturing firms in which others have subscribed the capital and undertaken the risk. In such cases that part of organisation which consists of management is performed by one set of people while that part of it which is associated with enterprise is performed by another. This tendency is very marked in American business. In that country the risk of business is undertaken by a set of people, while its management is carried on by paid men of high organising ability. For this reason, in several books on Economics, mostly of American origin, enterprise is not regarded as a function of organisation but is treated, owing to its growing importance, as a fifth factor of production. Organisation in such a case means only management of the various departments of production.

Natural resources and Human knowledge to use them. The economic history of man is nothing but a description of how his efforts were applied to materials provided by nature for the purpose of producing material objects, or deriving satisfaction therefrom for his own benefit and enjoyment. If natural resources in a certain region are vast and rich, but the people inhabiting it have not developed the capacity to utilise them to the fullest possible extent, it cannot be called prosperous. On the other hand, if a highly enterprising and intellectual people occupy a region which is poor in natural resources, it is possible that by the application of ingenuity, skill, and enterprise, they may manage to make themselves materially better off than the people of the first type. It is not meant to be conveyed here that man can become materially prosperous even in deserts like those of Sahara or in the Arctic regions. What is meant is that even with second class natural resources, a first class people can increase their material welfare more thoroughly than a third class people in a land with first class natural resources. Material prosperity is therefore a function of natural resources, and human knowledge and capacity to work them.

To give a few instances. England is a country which, no doubt, possesses certain very great advantages in the matter of natural resources, but it cannot be said that her natural resources, on the whole, are as great, varied, and rich as those of India. But because Englishmen possess greater knowledge and capacity to use the natural resources given them by nature, they have become very prosperous and rich. Indians, on the other hand, can be rightly said to be a poor people in a rich land. The natural resources of India are vast and varied, but we have not shown ourselves worthy of our land. Not only we do not rightly utilise our resources, but we handle them in such a way that they are impaired and so become less useful for future. We do not possess that enterprise, that "go" in us, which is so necessary in modern people. Our resources are exploited by outsiders for no other reason than that we ourselves do not possess the knowledge and the capacity to exploit them. If like the English we become a first class people, then with our vast natural resources we can become as rich and prosperous as the Americans to-day. India can be compared as regards the vastness of her resources to America, Russia, and China. The people of America are first among the first class people of the world. That is why they are the richest people on the face of the earth to-day. The Russians after the revolution, have begun to stir themselves, and in a very short time, only after two five-year-plans, they have brought themselves in a line with other advanced countries of the industrial world. The Chinese are disunited, and as unenterprising as the Indians. That is why both the countries are being exploited by foreigners; while those who have a right to call the country their own, are kept at a safe distance. The fault does not lie so much with the exploiters as with those who, owing to their own lethargy and absence of enterprise, permit others to exploit them. What is needed is only a grim determination to wake up and exploit in the best way the resources that nature has placed at our disposal.

NATURAL RESOURCES.

Under this heading will be discussed in a brief general outline the following kinds of resources (a) Geographical (b) Animal (c) Vegetable (d) Mineral and (e) Power.

(b) *Geographical resources.* The term 'geographical' is rather wide. It includes the physical environment of the people, the form and the structure of the surface of the land, the climatic conditions which prevail upon it, and the place relations in which different regions stand to one another. The physical structure of the earth affects the distribution of soils and minerals; climate varies with position and configuration; while vegetation is determined by soil characteristics and climatic conditions. The surface features of the land always exercise an important control upon the economic life of man, for not only do they act indirectly through their influence upon climate and vegetation, but they determine the physical limits within which different types of economic activities are possible. There is a great difference, for

example, in the yields of highlands and lowlands. In hilly tracts like Afghanistan and Nepal those products cannot be grown which can be grown in the Indo-Gangetic-plain.

The character of the soil of any region is determined by that of its rocks. As time passes, rocks begin to disintegrate on account of the constant action of air and water. This disintegrated matter is carried off by water after a heavy rainfall to great distances. The fertility or otherwise, therefore, of the various soils in a particular region is determined by the character and composition of their parent rocks. When the soil or sub-soil is of a stony character the constructions of canals, the digging of wells, and sometimes even ordinary agricultural operations become impossible or very toilsome. Consequently, vast stretches of land have to be left unused only because of the stony character of the soil. Sometimes, however, as a redeeming feature for this state of things, quarries begin to be worked in such areas, and stone or road building material begins to be extracted. Sometimes soil is 'made' not by the action of water and air upon surrounding rocks but by volcanic action. In a gigantic eruption of this nature vast amount of subterranean matter is thrown out in the form of lava which spreads far and wide and gives a particular character, colour, and composition to the soils and sub-soils of the surrounding region. The soils of the Deccan Plateau, the geologists say, have been formed in this way. That is why their colour is mostly black and the composition bears resemblance to that associated with lava.

Rivers play a very important part in the economy of every country. The presence or absence of these has an important influence on the economic condition of a country. They may be perennial or only seasonal. If the former, they can be depended upon and utilized for purposes of a permanent nature; but if they are only seasonal they cannot be of very great utility, as no work of a permanent nature can be started on their strength. Not only navigation, but also irrigation depends largely on the presence of perennial rivers. The course that a river takes in its flow is also not unimportant. If it passes mainly through hills and forests throughout the greater portion of its journey, it cannot be of very great utility to man. Brahmaputra, for example, flows mainly through hills and forests, and consequently is not as beneficial to human interests as the Ganges which flows through plains. Ever since the development of hydro-electricity, large perennial rivers have assumed very great importance.

In some countries there are big waterfalls and numerous hill streams. If they are favourably situated, they are utilized for generating electricity. Niagara Falls in America, for example, which are visited for their scenic splendour by more than two million people every year, are utilized, though to a small extent, for this purpose. About a million horse power is generated, though only a small quantity of water is allowed to be diverted for this purpose.

The climate of a country depends upon its latitude, altitude, and its proximity to the sea. It is affected by winds that blow periodically or all the year round, from land or sea. Whether a country is warm, hot or cold, depends upon its latitude—its distance from the equator. It also depends upon its altitude, the temperature becoming cooler at the rate of one degree for every three hundred feet of vertical ascent. The amount and distribution of rainfall has also an important effect upon the climate and character of a region. Two things are needed to make land fertile for agricultural purposes, heat and moisture. Given the composition of soil, its fertility depends upon these two factors. If there is only heat and no moisture, land assumes the form of a desert, as in Sind, Rajputana, Arabia etc. If there is only rain and no heat, land becomes swampy and marshy, and hence unsuitable for growing any crop. If, however, both heat and moisture are well proportioned, the land develops high fertility. In waterless deserts, vegetation becomes luxuriant wherever water becomes available. The oasis in a desert owes its existence to water.

(b) **Animal resources.** From the earliest dawn of human history man has exploited animal resources placed at his disposal by nature. The exploitation of animals may take two forms—(1) They may be exploited for all that they can yield to man in services and material products, but their lives may be spared. (2) They may be exploited not only for their services and the material products they can yield while living, but their lives may not be spared and their flesh may also be consumed. Dogs, horses, camels, elephants, asses, donkeys, circus animals, and pet birds, are utilized by man for the services they yield him, but their lives are spared. Cattle, sheep and poultry are exploited not only for their milk, wool and eggs but also for beef, mutton and chicken soup. Swine, deer, fish and other game birds and animals are utilized by man only for the dainty dishes on his table. In short, the animal kingdom is as much at his mercy, as the vegetable and mineral kingdoms are at his disposal. How he treats speechless animals, may be an unerring index of how a man is likely to treat weak and poor human beings if they ever fall within his power!

The ability of animal life to perpetuate itself and in addition, to supply man with a large proportion of his necessities and comforts, has materially aided human progress. Different animals have aided man to sustain himself in difficult circumstances and surroundings. The horse and camel have helped him in surmounting the difficulties of a desert life. The camel has been rightly called the ship of the desert. The donkey has helped him in mastering transport difficulties over hilly regions. Elephants have helped him in forests, while dogs every where. Where conditions have not been so difficult, man has established a number of important industries based upon different animals. The most important of these are sheep, dairy and poultry farming, but there are numerous other industries which owe their

origin to animals, and which now provide means of subsistence to millions of people. Man has taken great pains to perfect special kinds of breeds of such animals for his specific purpose. His prosperity depends, to a large extent, upon the ability and wisdom with which he utilizes these animals and their products, regulates their number, and maintains or improves their quality in the best manner suitable for his purpose. With steady increase in human population, there has been a progressive tendency towards the raising of animals for definite human needs, rather than depending on wild life. In recent years this trend has also included the breeding and raising of fur-bearing animals.

As a world resource, cattle exceed all other domestic animals in number and value, aggregating about seven hundred million head, according to a recent estimate. Under the term 'live stock' we include all bovine animals, whether kept for beef production, dairy purposes or as draught animals or beasts of burden. In some countries, notably India, buffaloes are also included in cattle estimates. Of the world total, Asia possesses about two-fifths, Europe about one-fifth, with South America, North America, Africa and Oceania (Australia and New Zealand) coming next in the order given.

Sheep are the next most numerous domesticated animals of economic importance. The world's supply is estimated at more than six hundred million. Of this number Europe has nearly a third, Asia about a fifth, and Oceania slightly less than a fifth. South America, North America and Africa follow next. Swine, though much fewer in number than either cattle or sheep, are noteworthy as a food resource owing to their fecundity and early maturity. Their number throughout the world is estimated to be about two hundred and seventy million, of which Asia, Europe and North America respectively have the largest supply. The figures of other animals of less importance are neither available nor very much needed.

As the population of the world is increasing steadily, and agricultural lands in most of the old countries, as also in some of the new ones, have begun to yield diminishing returns, much study has been given to the conservation of animal life in order that it may yield more meat and live stock products for the sustenance of man. Veterinary departments have begun to receive greater attention than they ever did before. Fish is another important animal resource. The important fisheries of the world are found mostly in the North Temperate Zone where conditions are specially favourable to fish life. The herrings, of which there are about a hundred and fifty species, represent the most important family of fishes. It is widely distributed in fresh and salt water and contributes a greater yield than any other family. It supplies the raw material for the highly important sardine industry of Norway, France, Spain, Portugal and the United States, the extensive herring curing industries of Northern Europe and North America, and extensive fish meal.

fertilizer and oil industries of Norway, United States, Canada and Japan. Cod-fishes are also very important for the oil that they yield. The annual catch of cod along the Atlantic coast of North America exceeds one thousand million pounds in weight. The salmons are noted for their exceptional food properties. The annual catch amounts to about one thousand million pounds a year. The fisheries are regarded as a most important source of food. Fish meal is also becoming important for feeding hogs, cattle and poultry. Fish fertilizer is generally recognized and widely used as a plant food. The demand for and use of fish oils for soap making etc., is increasing. About 60 million gallons of whale oil alone is now produced annually. Shells of certain fishes are an important source of raw materials for the manufacture of buttons. About 3000 million buttons per year are manufactured out of the shells of these fishes in the Mississippi valley region alone. Artificial and natural pearls are also derived from fishes.

The annual world harvest of fish and fishery products amounts to not less than 30,000 million lbs with a value of about Rs. 300 crores. Among the leading nations of the world in the prosecution of fisheries arranged in the relative order of the magnitude of their fisheries are (1) Japan with a catch of about 5700 million lbs. (2) United States with 3000 million lbs. (3) England 1700 million lbs. (4) Norway 1450 million lbs. (5) Russia 1200 million lbs. (6) Canada 1100 million lbs. and (7) Spain 900 million lbs. These seven countries produce about one half of the world's fishery harvest. Among other nations producing in excess of 500 million lbs annually are Scotland, Newfoundland, Germany, France and Portugal.

(c) **Vegetable resources.** Vegetable resources form the most important category among the natural resources of the world. Not only man, but most of the animals who are not exclusively of a carnivorous type subsist on vegetation. Most of the articles that one needs at the present day have their basis in the earth's vegetation. The primitive man was not slow to recognise the utility of the plant, as it served him both for sustenance and protection. The vegetation of the world may be divided into the following three great plant types —(i) Forest type (ii) Grass-land type and (iii) Desert type.

(i) **Forest type.** The forests of the world cover an area of about 22 million square miles. We will be able to form an idea of the vastness of the forest resources of the world when we remember that the total area of India is only about $1\frac{1}{2}$ million square miles. Most of the forest area is valuable timber land. The grass-land type of vegetation covers an area of about 13 million square miles of valuable grazing land. The desert type of vegetation covers an area of about 17 million square miles. It is used chiefly as grazing land of low-carrying capacity but where water is available it is also used for farming. The world contains about 26 million square miles of land suitable for grazing and about 25 million square miles of land for producing cool and warm weather crops.

Just at present, however, we are concerned with natural vegetation alone. The forests play a very important part in human economy. They supply man with timber of varying qualities and descriptions, suitable for his different needs. He wants it for building purposes. Wood girders, doors and windows need timber of the building type. Furniture requires timber of a different description. Yet again for purposes of fuel man requires large amount of timber of an entirely different type. All these types are available in forests.

The total quantity of wood grown in the world each year is roughly estimated at about 38,000 million cubic feet, while the present annual cut is estimated to be about 56,000 million cubic feet. From this it will appear that the annual cut is not being replaced by the annual growth; but the amount of growth each year represents the growth of only a small part of the forest area. Vast areas of virgin forests must be left out of calculation, because in their present condition there is no net growth in them. If all the forests of the world were placed in a growing condition, with only a moderate amount of management and protection against devastation they could produce annually at least 335,000 million cubic feet of wood!

(ii) Grassland type There are several types of grasses that grow naturally in different parts of the world. The vast areas of land surface covered by these grasses are utilised for various purposes. It may be mentioned that these grasslands are not exclusively grass-yielding areas but are also interspersed by trees 10 to 30 feet high, mostly of the type that yield rubber. The high grass lands grow grasses 5 to 12 feet high and the larger animals like elephants and rhinos live there. From such lands ivory is obtained and rubber and oil are also produced. They are found in Africa, South Asia and South America. The tall grass lands of the tropical type are very useful as grazing lands. Here the temperature is tropical, rainfall is between 30 to 80 inches and the height of the grass is from 3 to 5 feet. Such lands are very suitable for the abodes of both primitive and civilised men. The latter, after clearing the lands of the wild growth, utilise them for agricultural purposes. Such lands are found in South America, Africa, India and Australia.

The tall grass lands of temperate regions are purely grasslands without any trees scattered in between and are the richest lands in the world. The temperature is lower and the annual rainfall is between 20 to 40 inches. The soil is unusually deep and rich. These lands are at present the richest grain fields of the world. They are found in the United States of America, Argentine, South Russia, Siberia, Rumania, Hungary, South Africa and Australia. It will be remembered that the countries mentioned above are the largest wheat producing countries in the world.

Short grass lands are those that yield grasses only a few inches high. They are used for the purpose of dairy farming and also valuable for grazing. The mountain grassland occurs on the high mountains in the tropics. The climate is temperate

industry flourished at that period, as also the American. But with the advent of steel-bottomed ships, the utility and importance of wooden ships diminished to a large extent and they gradually disappeared from the scene

The importance of coal as a source of power has diminished with the development and use of hydro-electricity. Again with the growing importance of air ships, both for commercial and military purposes, the importance of petroleum has very greatly increased. Countries that have large petroleum reserves, and are also otherwise well equipped, have a clear advantage over those that have no petroleum.

Coal, iron and petroleum are, therefore, the three most important minerals at the present day. They form the basis of industrial greatness of a region. There are many other important minerals, especially those that are needed to construct aeroplanes, electric apparatus and many other useful or necessary things, but they do not compare in importance with the three mentioned above.

(e) **Power resources.** Under this heading, wind, water, coal, petroleum and hydro-electricity are generally discussed. Wind and water power resources are incapable of being discussed with any amount of definiteness. Coal and petroleum have been briefly touched above. Something will now be said about hydro-electricity, generated from falling water, and its importance among other natural power resources.

We have to take into consideration both the developed and potential water power of different parts of the world. The developed water power of the world according to the Geological survey made recently in the U. S. A. was about 40 million horse power, while its potential water power was 454 million horse power. The following table gives details.

	Developed			Potential		
North America	22	Million H. P.	65	Million H. P.		
South America	$\frac{3}{4}$	" "	54	" "		
Europe	15	" "	58	" "		
Asia	2	" "	69	" "		
Africa	$\frac{1}{4}$	" "	190	" "		
Oceania	$\frac{1}{4}$	" "	16	" "		

From the above it is clear that the potential water power of North America, South America, Europe and Asia is very nearly the same, that of Africa is greater than the combined power of any 3 areas, and that of Oceania is almost negligible. Africa possesses a high tableland where the amount of rainfall is fairly regular and quite heavy. The streams flow regularly and fall rather abruptly into the sea from this high tableland. That is why the potential water power of this continent is so immense. In Asia the annual rainfall, especially in Central, high and northern parts of it, is low and irregularly

distributed. That is why the potential power of this big continent is not much more than that of America or Europe.

Regarding India it may be said that ours is as yet mostly an unexplored country, especially as regards her natural resources. In the matter of water power resources, too, nothing can be said with any amount of definiteness. It was only in 1918 that the Government of India appointed a Committee to determine the hydro-electric position of the country. This Committee arrived at certain conclusions and one of its members submitted a report. It is unnecessary at this stage to go into the details of the recommendations of this Committee. This will be done later on when India's position as regards her natural resources is specifically discussed. It will suffice here to mention that India bids fair to be one of the leading countries of the world in the matter of hydro-electric resources. The amount of power actually developed or in the process of development is as yet very little, indeed, as compared to the potential power, on the one hand, and the country's needs, on the other. We are, however, concerned only with the potential rather than with the working resources of the country in this respect. With this point in view it may be said that about two million horse power is almost within sight without touching in the least the seven rivers in the Indus region, and numerous others in different parts of the country.

CHAPTER V

LAND.

Factors affecting its productivity. In the previous chapter we discussed in general outlines the four factors of production. In this chapter a more detailed description will be given of the first factor namely, Land, using the term in its narrow sense i.e. as distinguished from water. When it is used in its true economic sense, it will be made clear in the context, or the term Nature will be used as a synonym for Land.

The productivity of land, or the benefit that it confers upon its user, is determined by several factors. Let us first take the case of agricultural land which is used for purposes of cultivation. Clearly, in this case the first factor determining its productiveness is its fertility. There are some plots of land which yield a better crop than others, even though the same amount of care and effort is bestowed upon both. This greater yield is due to the fact that the composition and texture of soil in one plot is different from that in the other. A plot of land to be fertile must possess certain chemical and mechanical properties. It should have firstly, those ingredients called salts which serve as food for plants. In certain plots such salts are found in larger and better proportioned quantities than in others. When seed is grown in such a plot, it begins to get its food readily from these ingredients which nourish it and help its growth. When soil is not naturally fertile, that is to say, when it does not possess these salts and other ingredients, this deficiency is tried to be made up by mixing in the soil those things which are known to possess such ingredients. This is called manuring. The natural deficiency is thus made up by artificial means.

Naturally fertile lands, too, require such manures, though not in the same quantities and not very necessarily. After a crop has been raised from a plot of land, its ingredients natural or artificial, are largely used up in the process of the growth of the crop. It is therefore necessary to give back to the land those ingredients which have been used up in the process. Some crops are more exhausting than others. They use up larger amount of nourishing ingredients. Every cultivator in India knows this. Crops are therefore grown in such an order that what one crop has utilised in larger quantities, the succeeding crop may either not require that particular ingredient so largely or, as is often the case, may leave it in even greater quantities than before, through its roots. That is why mixed crops are raised. They try to neutralise the effects upon the soil of the raising of a crop. The principle of the rotation of crops, and of growing mixed crops is very well known to every Indian cultivator, although he may not be able to say definitely what particular salts are consumed more by one crop and left in the soil by another.

Water is absolutely essential for utilising these salt ingredients in the soil. When they are dissolved in water, only then can the tender roots of plant suck up their food. Even a slight moisture in the soil is enough for this purpose. Unless dissolved in water, and so in a suitable form to be utilised by the plant roots, these salts do not serve any useful purpose. That is why plants cannot grow without water.

To enable water to reach the roots of plants, the texture of the soil should neither be very soft nor very hard. If it is very soft, water will find too free a passage through it. If a seed is placed in such a soil it will be difficult for it to draw its food as the water will pass by it quickly and reach the place where its further progress is retarded by a harder soil. A sandy soil when examined by a microscope shows a large number of cavities or open spaces, through which water passes freely. So the soil should not be very soft.

But it should not be very hard either. If it is so, water will be lying only on its surface and will not be able to reach deep enough to help the plants to draw their food. When it reaches there after a considerable difficulty, it shows a tendency to stay for a longer period than is really necessary. If the roots of plants remain surrounded with water or immersed into it for long, they do not gain anything thereby, but only suffer, and the plants begin to pale and then die after some time. So the soil should neither be too soft nor should it be too hard of texture. These are the mechanical properties of the soil. In order to let the plant roots take nourishment from the chemical ingredients, the texture of the soil should be such that water can perform its duties at the right time and in the right manner.

Situation. Although fertility is a very important factor of productivity of agricultural land, there is another factor which is equally, and in some cases even more, important than fertility. As long as crops were grown by a cultivator for his own consumption, or, say, for being sold in the village itself, the fertility of land was the most important factor. But since the development of the practice to sell crops outside the village, the factor of situation has assumed very great importance. Even when crops were raised for purposes of home consumption or for purposes of sale in the village, the fields situated nearer the village were preferred more than those lying at a distance owing to the convenience they gave at the time of the moving of crops from the fields to the village. But this factor became very important with the growth of commercial farming. Lands lying close to a road, kuchha or pukka, leading to a grain mandi rose in value as compared to those lying away from such roads. If a plot of land yielded, say, two maunds per acre more of a certain crop than did another plot, but if the cost of transportation from the first plot to the nearest market happened to be so much more that the advantage of fertility was more than neutralised, obviously the second plot of land yielding a little less but costing much less in transport would begin to be regarded as the more productive of the two. Tracts of land lying close

to a Railway Station would begin to be regarded as highly productive, even though their natural fertility may not be as high as that of others not so favourably situated. So with the development in the means of transportation, and, consequently, with the development in commercial farming the situation of land has become a very important factor in its productivity.

Improvements. Productivity of land is also affected a great deal by improvements carried out by an individual cultivator, a landlord or the State. In England, for example, it is customary for the landlord to provide all permanent improvements in his land, like drainage works, farm buildings, enclosures and the like. These improvements affect the productivity of land to an enormous extent. In India the zemindars and taluqdars do not take this trouble. The reason is simple. In England agriculture is an occupation which is not very popular. In order, therefore, to attract people to take to this occupation and to stick to it, the landlords, who have so much at stake, try to give as many facilities to the farmer as possible. In India on the other hand, agriculture is the only occupation which is available to the Indian masses and so there is a great demand for land for agricultural purposes. Good, bad, or indifferent land, with or without any conveniences, is readily taken up and the zemindar does not feel called upon to incur any extra expenditure for introducing improvements of a permanent nature.

The cultivator being poor has no means to affect any but the most pressing improvements. He is sometimes not in a position even to provide such things to his soil which it sorely needs, and without which its productivity is considerably impaired. Enclosures affect the productivity of agricultural plots a great deal. When fields remain open the amount of damage caused by cattle, pedestrians, wild animals and poachers is enormous. But the area of each field being small, and the means of the cultivator even smaller, this crying need is also not satisfied.

Manure, water, rotation of crops and skilful ploughing affect the productivity immensely. In India, rotation of crops is very well known and understood and is universally practised. The skill of the individual cultivator also does not leave much to be desired. His knowledge, however, of the science and art of agriculture especially of the former, has become a little out of date. But he is picking up this knowledge very soon and it is hoped that at no distant date he will come on a level with cultivators in other lands. As regards water the condition is not so satisfactory. He depends for water either on natural rainfall, which is an uncertain affair or on canal or well water. In the matter of canal water he is not very happily placed. Being illiterate he is easily lorded over by petty dignitaries of the canal department and very often does not get water at the right time without much difficulty. Tube wells have also begun to be constructed in certain areas served with hydro-electricity. Water is supplied to surrounding plots of land. But it is yet too early to say anything regarding the utility or otherwise of

this supplementary source of irrigation, except that people have begun to utilise this water with some advantage to their crops.

The most satisfactory method of supplying the much needed water to the land is by means of constructing pucca wells at a convenient place in the area to be served. It does not cost the cultivator much to draw out water from such a well. He can depend upon his own labour and that of his nearest relatives for this purpose. He has to keep two or more pairs of bullocks for other agricultural operations as well. They can be very well utilised for this purpose. If he has only a good, pucca well at his disposal, he will not have to depend upon nature, or outside agencies for the supply of this most important commodity in agriculture. He can have water whenever he needs it, and will then in his greed not have more than he actually needs. When he has no well to depend upon but purchases water from canals, he is prone to fill up his fields with water to an extent that sometimes results in damage to his crop. But he cannot help it. When after a good deal of waiting, he finds that it is his turn to take water, he feels like saying to himself 'Now or never.' He knows that 'after the pre-ent opportunity is gone, God knows when he may have another opportunity to irrigate his field'. So he sometimes continues to fill it regardless of the damage the excess of water may do to his crops. Like a thirsty man, he loses, for the time being at least, all sense of proportion.

This aspect of the question has attracted the attention of many careful observers and the best remedy so far suggested is providing facilities to individual peasant proprietors to have pucca wells of their own, and to induce zemindars to construct wells in their lands for the use of cultivators and charge either enhanced rents or a moderate price of water if the zemindars prefer to construct electric tube well.

In the matter of manure the condition is least satisfactory. On account of his ginding poverty, the Indian cultivator does not find himself in a position to give to his fields the more costly forms of manure, but he does not give even that quantity of farm yard manure which is actually available to him. In the first place he cannot preserve the liquid farm yard manure viz urine of cattle, as he does not very much realise its importance, and also finds some difficulty in preserving it. As a matter of fact, it has been established by competent agricultural authorities that the chemical value of liquid manure is almost equal to that of solid manure. It means that the urine a given number of cattle pass, say, in 24 hours, possesses as much manurial value as the amount of solid droppings of the same number of cattle during the same period. It is, therefore, bad economy to let this liquid manure go to waste. It is not really difficult to preserve it if a little trouble is taken every day.

But leaving the question of liquid manure aside, we find that the Indian cultivator is not very careful as regards even the solid droppings of his cattle. The dung of cattle is used as fuel, and

the land is deprived of its due. The general rule is that the land should be given back, as far as possible, the major portion of that which is extracted out of it, though in a changed form. If this continues to be done, it will never lose its fertility, but may even gain it, if by proper treatment it is also enabled to attract a fair portion of its food from the air and water, assisted by heat and light.

Training the cultivators in the art of preservation of manure, is very important and urgent. The Government agencies are doing as much as is humanly possible to do. Non-official agencies have never given their attention in this direction. The method known as the Chinese compost has been popularised to some extent by Government departments, but the villagers have not yet felt the urge from within. Non-official agencies alone can succeed in creating this.

Physical Features of India. India is more a continent than a country. Its area is 1,54,4000 square miles. It is thus about fourteen times the size of Great Britain, and is almost equal to the whole of Europe minus Russia. Its population according to the census of 1941 was 38,88,00,000 or roughly about 39 crores. It has a vast land frontier and the length of its coast line is about 5,000 miles. The form of India is that of a great triangle, with its base resting upon the Himalayan edge, and its apex running far into the ocean. It extends from the 8th to the 37th degree of north latitude, that is to say, from the hottest region of the equator, to far within the temperate zone. It is shut off from the rest of Asia on the north by the Himalayas, and from the rest of the world by tropical ocean.

It can be divided into three distinct and well defined regions.

1 Himalayas. The first is the Himalayan region, comprising a system of stupendous ranges, the loftiest in the world. The length of this range at the north, is about 2,500 miles. At the north-eastern angle of this vast frontier Dihang river bursts through the main axis of the range. At the opposite or north-western angle the Indus, in like manner, pierces the Himalayas, and turns southwards on its course through the Punjab.

The Himalayas not only protect India on the north, but at both their eastern and western extremities send out ranges to the south which protect its north eastern and north western frontiers. On the north east those offshoots form a barrier between the civilized districts of Assam and the wild tribes of Upper Burma. On the opposite of north western frontier the mountains run down the entire length of the British boundaries from the Himalayas to the sea. There are certain openings however in this mountain wall which are called passes. The numerous invasions of the country from the north have been through these passes.

2 The Indo Gangetic Plains The wide plains watered by the Himalayan rivers, form the second of the three regions of India. They extend from the Bay of Bengal to the Arabian sea. This vast level tract, largest in the world, is watered by three

distinct river systems. One of these systems takes its rise in the hollow trough beyond the Himalayas, and issues through their western ranges upon the Punjab as the Sutlej and the Indus. The second of the three river systems also takes its rise beyond the double wall of the Himalayas, not very far from the sources of the Indus and the Sutlej, but it turns to the east instead of the west, enters India at the eastern extremity of the Himalayas and becomes the Brahmaputra. These rivers, (Sutlej, Indus and the Brahmaputra, collect the drainage of the northern slopes of the Himalayas and convey it by long and tortuous, although opposite, routes into India. The third river system of Northern India receives the drainage of the southern slopes and eventually unites into the mighty stream of the Ganges.

3. The Deccan Table-land. The third division of India comprises the three sided table-land which covers the southern, or, more strictly, the peninsular portion of India. This tract comprises the Central Provinces and Berar, the provinces of Madras and Bombay and also Hyderabad and Mysore—besides other small states. Its northern side rests on the Vindhya mountains. The flanks of this table-land are guarded by Mt. Abu on the extreme west and Mt. Paras Nath on the extreme east. The other two sides of the elevated southern triangle are known as the Eastern and Western Ghats. These start southwards from the extremities of the Vindhya system, and run along the eastern and western coasts of India. The Western Ghats form the great sea wall of the province of Bombay. This inner triangular plateau is one thousand to three thousand feet above the level of the sea.

Of the three regions of India surveyed above, the first or the Himalayan, lies for the most part beyond the Indian frontier, but its economic importance to the country which we are now going to discuss is incalculable. The second region has taken a great part in the shaping of civilization and political destinies of the whole Indian peninsula. The third region, or the triangular table-land in the south, differs markedly in its population, languages, and traditions from either of the other two divisions.

Origin of the three main regions. It may be of some interest to know what Geologists say of the three main regions mentioned above. In the opinion of the geologists, the Deccan plateau was once the only part of present day India and so it is its oldest part. Then certain eruptions began to take place in the Deccan area, which were more of a terrestrial nature through fissures than of a volcanic origin. These eruptions lasted for a long time and the lava that was emitted was so vast in quantity that it covered an area of about two hundred thousand sq miles to a depth of thousands of feet. The plateau was thus covered by a thick dust of a blackish colour of very great depth. This accounts, it is said, for the existence of black cotton soil near Central Provinces, Berar and Bombay and its peculiar properties of absorbing and retaining moisture to

a remarkable degree. On all sides of this delta was the sea upto the Tibetan plateau.

Then there ensued a terrible upheaval in nature, the like of which had never appeared before, and is not likely to appear in the future. There was a great convulsion and immense commotion in the interior portion of the earth, and the Himalayas came out as if by magic from the bottom of the sea. With this terrible mass of solid stones rising above the surface of water, the waters of the sea that flowed where the Himalayas had now emerged, were thrown to the right and the left. Thus came into existence the second portion of what is now called India, namely, the mighty Himalayas. In between the Deccan plateau, with its lava-covered deep surface, and the high and mighty Himalayas, the sea still flowed in all its majesty.

But the wind and the water were not idle, and they began to do their work. By the action of both, huge portions of the newly evolved rocks got disintegrated, and in the course of their fall and descent were broken, grounded and powdered. This huge material continued to be deposited at the bottom of the sea still flowing between them, as yet the only portions of India. In the course of time, with the increase in the quantity of these solid deposits in the bottom of the sea, its waters began to grow shallow. With a further lapse of time the sea began to dry up, and ultimately actually dried up, leaving behind it the Indo-Gangetic plain, which is composed accordingly of immense layers of alluvial deposits. This is how the geologists explain the coming into existence of the three main regions into which our country is now divided.

Something may now be said about the economic importance of these three regions. The Himalaya, or the northern mountainous region, is our guardian angel. The amount of rainfall that we get, especially that which affects the Indo-Gangetic plain, is because of the action of these mountains. When the water-laden winds strike against the high walls of the Himalayas, they are raised higher and higher up, till the water condenses and falls down in the form of rain. These winds are also deflected in different directions by these ranges and the rainfall is thus distributed far and wide. If the Himalayas were not where they are at present, the monsoons would pass beyond the Indian frontier and reach Tibet or any other portion without giving us any rain whatsoever. What India has gained in this respect, Tibet has lost.

The Himalayas are the source of the most important river systems of India. As already pointed out, the Indo-Gangetic plain has been created out of the flesh and bones, so to say, of the Himalayas. Not only does it owe its being to this grand range, but it also owes its continued prosperity to the same source. The great plain is still irrigated by those systems of rivers which rise in the Himalayas and are fed by the snow that collects at their tops.

The vast area of forests, the beautiful valleys with all their romance, the immense potentialities of water power and mineral resources, are the additional gifts which the Himalayas have conferred upon the country. Besides these material advantages, there are many non-material aspects of great importance of this region. From the dawn of Indian History this region has been the abode of the most learned and the best people in the land. The bewitching scenery, unique in its grandeur and sublimity, attracted millions of people in hoary times and attracts an equal, even increasing, number every year at present.

The Indo-Gangetic plain is the mainstay of the majority of the Indian people. The richest and the most populous portion of the country lies within this plain. All kinds of economic activities are possible here, as it is rich in all those resources which are necessary for starting economic production. On account of its uniform nature, irrigation, navigation, road and railway construction, are all possible.

The Deccan Plateau is not so full of potentialities as the Himalayan region, and is not so rich as the Indo-Gangetic plain. As a matter of fact, the soil on the whole, is not as rich as that of the Indo-Gangetic plain, and in certain parts is definitely poor. The black cotton soil, however, is rich enough, and very large quantity of cotton is grown in Central Provinces, Berar and parts of Bombay Province where this black soil is found.

The Western Ghats have proved to be a blessing to the surrounding country. They check the monsoons rising from the sea and coming towards the land, and the amount of rainfall is very heavy on the western coast of the peninsula. Large catchment areas have been constructed, where rain water is stored up, and in the process of falling is made to generate hydro-electricity which is utilised for various purposes by the surrounding industrial and agricultural territories. The potentiality of the Western Ghats in the matter of generating hydro-electric power is considered to be very great, indeed. The Tatas have already invested several crores of rupees in the erection of modern hydro-electric works. It is surmised that the Western Ghats will prove to be one of the richest sources of hydro-electric energy in India.

Indian Monsoon. There are two types of monsoon currents which give rainfall to the country during the course of the year, the north-east monsoon and the south-west monsoon. Corresponding to these monsoons, the year may also be divided into two great divisions, the dry season and the rainy season. The period of the year when the dry season is said to prevail corresponds with the period of the north east monsoon, while that which is called the rainy season corresponds with the period of the south-west monsoon.

The south-west monsoon currents usually set in during the first fortnight of June. They first strike the Bombay and Bengal coasts. Though they linger on their way up country, and give more or less general rain in every part of India during the next

three months, the distribution of rainfall is very uneven. It is enormous in the Khasi hills in Assam, where it is sometimes 500 inches a year! The western part of Deccan, together with the Mysore table-land and the Carnatic, are left almost dry. The Bengal monsoon also leaves the Coromandal coast and the Carnatic with only an occasional shower, and takes a larger volume of water inland, giving abundant rain to Assam and Cachar. In September, the force of the South West monsoon begins rapidly to decline, and in its wake springs up a gentle, steady north east wind which gradually extends over the Bay of Bengal and is known as the north-east monsoon. This current lasts from the middle of December to the middle of March, and gives the much needed winter rains which are not heavy. The south-west monsoon, however, is much more important than the north-east one, as it gives copious rains to the whole country and helps the growth not only of the standing crop of the season, but also leaves moisture in the land fairly adequate for sowing the seed of the winter crops.

Indian Soils. Soil is the surface layer of earth on which the land plants grow. It is derived from, and is therefore made of, the same constituents as the rocks; but it has been subjected to the action of air and water which alter and remove some of the original components, so that the proportions of the various substances in the soil are not always the same as in the parent rock. The mineral particles constitute the basis or foundation of the soil, but not the whole of it. In any region, whose rainfall and temperature conditions are favourable, vegetation rapidly springs up, obtaining its mineral ingredient and its nitrogen matter from the carbon-dioxide of the air, using for this purpose the energy of sunlight; and when they die and dead remains fall back on the soil, there is introduced a new group of constituents. These two components, therefore (1) mineral substances derived from the rock (2) the organic substances derived from previous generations of plants, constitute soil.

Indian soils have been differently classified by different authors, but the most common characteristics are amply brought out in the following classification. There are mainly three types of soils (1) Alluvial (2) Deccan Trap (3) Crystalline.

(1) **The Alluvial soils.** These kinds of soils are the most extensive and most important from the point of view of agriculture. They have been formed, as mentioned previously in a different connection, by the action of wind and water upon the Himalayas. They extend over the greater portion of Sind, Rajputana, the Punjab, the United Provinces, Bengal, some districts of Madras, extensive tracts in Assam, and the eastern and western coast strips of the Deccan Peninsula. These soils, though chemically rich, are generally deficient in Nitrates. Cattle droppings and night soils are rich in Nitrates, that is why they are so much used as manure by cultivators who have to deal with alluvial soils. With a well distributed rainfall it is possible

to grow a large variety of Kharif and Rabi crops. These soils are a combination in different proportions of sand and clay. If the proportion of sand is larger, the soil is called a *sandy loam*; if clay is found in larger proportion, the soil is designated a *clayey loam*.

(2) **The Deccan Trap soils.** These kinds of soils extend over the whole of the Deccan, and the greater portion of Bombay, Berar, Western part of the Central Provinces and Hyderabad. It is here that we find the true Black Cotton soils which are so valuable for growing cotton. It is called black because of its colour. It is extremely rich in chemical properties and is highly retentive of moisture. The colour, it is surmised, is associated with the origin of these soils which is considered to be the lava, thrown out either by volcanic action or through fissures due to internal commotion.

(3) **Crystalline soils.** They occupy the whole of the peninsula outside the areas of the Deccan trap. These soils lack in chemical ingredients and are deficient in nitrates and phosphoric acid, but their productivity varies considerably. Rice grows abundantly when these soils are well irrigated by canals. Under a well system also, great varieties of crops can be raised on these soils. The reddish brown or yellow red soils of this type found in Belgaum, Dharwar etc are specially suited to the cultivation of fruit-trees, particularly mangoes.

There is, however, one characteristic which is common to all kinds of soils in India, namely, their dryness. Because of this, irrigation becomes a great necessity. It may be pointed out that the characteristic feature of all English soils is wetness, and so the main problem there is of drainage.

Soil erosion The process of the removal of upper portions of the earth's crust by natural agencies, of which the most important is water, is called soil erosion. The land surface is generally subjected to a continuous process of erosion by the action of rain, floods, melting snow, frost etc. The result is that the sediment is carried by streams and by the flowing rain water to the sea. This portion of the earth should be considered to have been altogether lost. Sometimes, certain important ingredients of the soil which contribute to its fertility, are washed away in this manner. In those countries and tracts where rainfall is heavy, the loss by erosion is very great. India being such a country there is a great loss of this nature every year. In different parts of the country, especially in Bundhelkhand and certain native states, deep ravines have been formed by the action of rain water and on account of the changing courses of rivers. The Jumna has caused a great loss of this nature to areas on both sides of it. On a level plain with very little slope, this loss is inappreciable. On such level tracts water does not flow with great force and so cannot carry the earth particles along with it; but where the slope is more pronounced, soil erosion becomes considerable. In peninsular India, for example, the slope is more pronounced from west to east, and consequently

the loss by erosion is great. It also depends upon the nature of the soil. If the soil is soft and easily soluble in water, the loss will be greater than when it is hard and not easily soluble.

On the whole, we find that India has to suffer a great loss from soil erosion every year. Something, therefore, is urgently called for to minimise, if not altogether stop, this continuous damage. One remedy is to plant forests in those regions where the slope is more pronounced. Trees arrest the rapid flow of water and reduce its force. They also absorb through their roots, and fallen leaves, a large amount of such water. Embankments which are generally constructed in European countries to meet a situation like this, seem to be a very costly remedy for a poor country like India. However, by raising earthen mounds, facing the slope, individual cultivators can protect their fields from the damage caused by rapidly flowing water. The problem calls for careful and serious consideration.

CHAPTER VI.

PRODUCTS OF INDIAN LAND

Agricultural products and their distribution. Agriculture is the most important industry of India. About 90% of the people depend directly or indirectly upon it. There are about six hundred thousand villages in the whole country and so India can rightly be called a country of villages.

The important products of Indian agriculture may be classified into (1) Foods, like rice and wheat (2) Fibres, like jute and cotton (3) Oilseeds (4) Drugs and Beverages, such as tobacco and tea.

1. FOODS.

Rice. It is one of the staple and most extensively grown crops of India flourishing in lowlying tracts of tropical regions with plenty of rainfall. It is grown mostly in Bengal, Behar, Orissa and Madras. The varieties cultivated are numerous, the total area under cultivation being more than 72 million acres. More than 35% of the total area under cultivation in the country is under rice alone. The yield of the crop, however, is much less in India than in Japan and other countries. Improved varieties of rice are being introduced and it is expected that very soon the yield will increase by about two or three maunds per acre. The area under improved varieties is now about 5 million acres and various schemes in all principal rice growing provinces are in progress. The Imperial Council of Agricultural Research is financing all such schemes. India consumes more rice than she produces. The balance used to be provided by Burma before the present War. About 1½ million tons of rice was also imported from Thailand and French Indo-China in the pre-war year.

Wheat. Wheat is the second most important crop of India. It is a winter crop and can be raised advantageously in provinces which have a temperate climate, that is to say, dry atmosphere, moderate rainfall and a cool temperature. Canal irrigation has made it possible for large areas of land to be brought under wheat cultivation. India is now third in point of acreage, Russia being first, and America second. Pusa wheat gives a better yield, and it is now becoming popular. It is consumed by a very small percentage of population in India. The upper India wheat is generally consumed in the country, while wheat grown in other parts is exported, if there is a surplus.

The Indian yield per acre is much less than that of some of important wheat producing countries of the world. Wheat is exported only when harvests in India are good, and the price

in the world market is such that it is profitable to export it at that price. It is the opinion of experts that it is not so paying to grow wheat in India as some other crops. The Indian cultivator is a very bad accountant, and cannot form a correct estimate of his expenses of production. In the United Provinces, especially, it is not at all paying to grow wheat in most of the areas where it is now grown. Sugarcane, on the other hand, is a crop which, inspite of the recent vicissitudes in its price, can still pay the cultivator his expenses of production and leave him a fair margin of profit.

Sugar Cane. India, the original home of sugar-cane, was until recently a large importer of sugar, but during the last few years, it has again become one of the most important sugar cane growing countries in the world. The area under sugar cane cultivation is larger than in any other country of the world, but its average yield is still very low. The area under cultivation was about 4½ million acres in 1940-41.

2. FIBRES.

Cotton The most important crop coming under the category is cotton. The black cotton soil is very suitable for its growth and the province of Bombay, therefore, leads in its production. Half the total area under cotton is confined to Bombay and Berar, and the other half to the rest of India, including United Provinces, Central Provinces, Punjab, Madras, Bengal and Assam. As usual, the yield of cotton per acre in India is ridiculously small as compared to that in the United States of America and Egypt. In America it is 200 lbs. per acre; in Egypt 450 lbs while in India it is only 85 lbs! Before the War about 45 per cent. of the whole crop was retained in the country while about 55 per cent. was exported, Japan being our best customer.

There are numerous varieties of cotton but they can be mainly classified under two, namely, long staple and short staple. The long staple is of a slightly yellowish colour and can yield long fibre of very fine quality. High counts of yarn, out of which very fine goods are woven, can be spun out of long stapled cotton only. Short stapled cotton cannot be used for the production of fine counts and goods of high quality. India grows mostly the short stapled variety. There are several reasons for this.

In the first place the short stapled variety matures in about five months time and can stand the vagaries of weather much better than can the long stapled variety, which is more delicate and takes about eight to ten months to grow. The demand for the short stapled variety is, moreover, very great and continuous. Being very white in colour it is demanded for mixing with wool. This accounts for its demand in Europe. It is demanded in Japan for use as raw material in the production of cotton goods. For these reasons it is more profitable to grow the short stapled variety than the other one. It is regrettable to find that those

Indian Mills which produce cotton goods of very fine quality have to import yarn or sometimes cotton from outside. There is also a great amount of difficulty experienced in selecting the proper seed for the long stapled variety and acclimatising it to Indian conditions. The Indian Agricultural Department, however, is doing as much as it can. As a matter of fact there does not seem to be any justification in our first exporting large quantities of cotton to Japan or to England and then importing vast quantities of cotton goods from both. The English cotton industry is specialized in the production of goods of higher counts for which long stapled cotton is required. The Japanese industry, like the Indian, is specialized in the production of goods of low counts, and so requires short stapled cotton of the kind we grow. The best thing would be to keep the cotton we grow in our own country. When we can supply, unaided, the total demand for cotton cloth in the country, and still there is an exportable surplus of cotton, it may be exported to any country which gives us the best price.

The Central India Cotton Committee is trying its best to popularize the growing of long stapled cotton and discourage the malpractice of adulteration. In both respects it is meeting with fair success. Long stapled cotton of the finest variety used to be grown in India in very early times. The famous Dacca muslins and the finest quality of other cotton goods used to be made out of this cotton. With the decline in the hand loom weaving industry, the demand for this type of cotton began to fall, and in course of time its cultivation practically ceased altogether. Also on account of the ginning of cotton in mills instead of in hand gins, the seeds of the good, bad and indifferent varieties, got mixed up together, and it became difficult to get pure seed of the best quality, except with very great difficulty. The Punjab American, a long stapled variety, is giving good results. Other varieties, both medium and long, are also being tried.

Jute. The fibre, next in importance to cotton, is jute. The lower course of the Ganges is considered to be the most important jute growing centre in the world. But the area under jute in Assam is also rapidly extending. Jute is a highly exhausting crop. Even the most fertile plots tend to be deprived of their mineral ingredients after this crop has been raised once. This is why it is grown mainly in those low lying tracts which are overflowed by water as soon as the crop is reaped. The exhausted soil thus recuperates itself rapidly, owing to the silt that is washed down to the area by water. Attempts are being made in other provinces to discover and develop a variety of jute which may be successfully grown in a dry climate. But these attempts have not yet met with any appreciable success.

India is the largest jute exporting country in the world. It has practically a monopoly in its production and a very large quantity is exported to foreign countries. On account of shipping difficulties during the war the growing and manufacture of jute has had to be restricted and exports have fallen a great deal.

But even so, jute industry has reaped a rich harvest in profits due to war conditions. India has supplied vast quantities of gunny bags to the Allies in all theatres of war at very high prices. Russia has proved a very good customer.

Silk Mysore alone produces two-thirds of silk grown in the country. The silk and silk-worm are not indigenous to India. They were brought to the country by Chinese visitors. The chief areas of mulberry silk production are Murshidabad in Bengal; Dehradun and Pratapgarh in the United Provinces, and a few districts in the Punjab, and of course Kashmere. It is exported mostly in the raw state. Unless it is taken up earnestly as a subsidiary occupation by our agriculturists, silk rearing industry cannot stand the competition of Japan and China, on the one hand, and of the artificial silk producing countries like England, France and Italy, on the other.

3. OILSEEDS.

The oilseeds production of India, is very important from the commercial point of view, but their export does more harm than good to our agricultural and industrial economy. The varieties of seeds that are grown are linseed, sesamum etc. About 8 per cent. (16 million acres) of the total cultivated area is under oilseeds. The export trade totals about Rs. 25 crores.

As mentioned previously, it is the view of agricultural experts that in order to maintain intact the fertility of the soil it is necessary to give back to it as much as possible of what is taken out of it, though, of course, in changed forms. For this reason the use of cattle droppings as fuel was pronounced injurious, as it deprived the land of its rightful share in its own yield. The same can be said with greater force in the case of the export of oilseeds. When they are exported to foreign countries, India's land is deprived of the oil-cake which could have been utilised, either as cattle food or as land fertiliser. In return we import different kinds of oils or articles in which oil is used as an important ingredient. This state of things is certainly not desirable. In such cases long period view should be taken and the export of oil seeds should not be permitted from India in the interests of our land, our cattle and the country as a whole.

4. DRUGS AND BEVERAGES.

Tobacco. The Portuguese, perhaps, first introduced the plant into India. It is indigenous to America where Columbus was the first to discover it. It is chiefly grown in Madras, Bengal and to some extent in the United Provinces. It is used in the production of Indian variety of semi-solid tobacco, used in Indian pipe smoking. It can also be used for making cigarettes and cigars. Although India imports quite a large quantity of cigarettes and cigars, it exports tobacco worth more than a crore of rupees, especially to the United Kingdom. Although bid

industry has perhaps come to stay, especially in Bengal, no serious attempt has yet been made to manufacture cigarettes of a really good quality to displace the imported ones. In the last Budget of the Government of India (1943-44) there is a proposal to tax tobacco. How it will effect its growers will be watched with interest.

Tea About two thirds of area under tea is in Assam. The other areas being Darjeeling in Bengal, Nilgiris in Madras, Kangra in the Punjab, Dehradun in the United Provinces and the states of Travancore and Cochin. The exports are valued at more than Rs 23 to 25 crores per annum, of which about 85 per cent. are sent to Great Britain. Tea is a plant that requires very frequent showers of rainfall and yet its roots cannot stand water for long. It is for this reason that the plant is grown along the slopes of high level grounds in places where rainfall is frequent. That is why Assam, which eminently meets the requirements mentioned above, is by far the most important area of tea production. There cannot be any objection for the export of tea, provided the condition of labourers working in tea plantations is not allowed to remain as it is at present. The tea habit is growing fast in the country and it seems to have come to stay. The future of tea industry is therefore very bright. There is a growing demand for Indian tea abroad and a steadily increasing demand at home.

Minerals and their Distribution. The mineral wealth of a country is a gift of nature given to people residing in that particular country. This gift differs from other gifts of nature. Air and water are unlimited in quantity, and so nobody cares to economise in them as they are so abundant that they can continue to satisfy the demands of people without showing any signs of diminution. Land, though limited in quantity, has certain characteristics peculiar to itself, which make certain properties of it indestructible and certain other properties replaceable, after some period of rest is granted to it. But the mineral wealth is not replaceable at all. It takes thousands of years, perhaps millions, for ordinary particles of earth to be converted into coal or iron, or other mineral substances under a definite temperature and pressure. The mineral resources, therefore, when exhausted, can never be replaced. They are exhaustible. Air and water may be used even thoughtlessly. Land needs only a little care, and with this bestowed upon it, can last almost for an unlimited period. Not so, however, with the mineral wealth of a country. When it is once exhausted, either by careless use or by criminal neglect, it cannot be acquired again at any price whatsoever. Unreasonable waste of it, therefore, is to be avoided at all costs. It should be treated as one's capital, or as the life blood of a nation.

⚡ This country, however, exports most of its minerals in a raw state. The mining and metallurgical works have been started and are run mostly by foreign capital and by foreign capitalists. Such people cannot have any regard for the future of a country

which lies open before them for exploitation. They are guided only by their own selfish interests, as the country does not belong to them. They cannot feel any pang in their heart when they export India's mineral wealth outside the country for their own profit, and for the profit of those where this wealth in a raw state is converted into finished articles of utility. No doubt, the State receives something in the form of royalty, which is, however, only a very small fraction. The labourers who are engaged in working in the mines also get wages with which they somehow manage to support themselves. But the main profit goes either in the pockets of those who work these mines, or is reaped by those who utilise them for some purpose. This is a great waste of the country's exhaustible non-replaceable wealth and so from the country's point of view, inexcusable. While a tree once cut down can grow in five, ten, twenty or even fifty years according to the nature and the age of the tree, minerals, once taken out of the land, cannot be replaced even after thousands of year! It is, therefore, the duty of the government to see that this exhaustible natural resource is not allowed to be utilised light heartedly for purposes which do not bring any appreciable gain to the country at large.

1. Coal About 85 per cent. of the coal comes from Bengal, Behar and Orissa—Gondwana coal fields. It is found in other parts of India also, but in such small quantities that the deposits are of little value. It is very unevenly distributed, and so has not been able to give as much benefit to Indian industry as it otherwise could have given. India is a country of vast distances, and it is very difficult for a heavy and bulky article like coal to be transported from one part of the country to another. The result is that while coal at the pit's mouth is about rupees four a ton, its cost becomes near about Rs 14 per ton before it reaches Bombay by rail and steamer. It is for this reason that Bengal coal has not been able to benefit Bombay cotton industry to any great extent. Bombay mills have often imported coal from South Africa and have now begun to utilise Hydro-electric power generated by the Tatas. The total output was in the vicinity of twenty million tons. The railways used to consume about 33 per cent before the war, but during the last two years it has been about thirty million tons due to its great importance for war purposes but their consumption has fallen a great deal recently.

Indian coal is inferior in quality as compared to British coal. The latter is $2\frac{1}{2}$ times as efficient as the former. England has benefited much more by coal mining than India. In England coal and iron mines are found side by side and industrial towns and cities have sprung up in close proximity to them. Even if the industrial centres are at some distance from the mines, coal can be supplied to them by canals of which there is a great net work.

Iron. Next to coal the most important mineral is iron. The best iron ore is found in Madras and Hyderabad. But on account

of the absence of coal near about the iron deposits, it cannot be worked on a commercial scale. Iron ore in very small deposits is found at numerous places in India. Before the introduction of foreign iron and steel goods, local blacksmiths used to get ore from local deposits and make all kinds of iron and steel implements and tools out of it. High quality Indian swords and other weapons of war were all made by local artisans out of indigenous methods. But these deposits are now practically useless, as they cannot be worked on account of their smallness by modern methods; while the application of the old indigenous methods by Indian artisans, though it would highly increase the durability and improve the quality of the article so made, would also make its price very high.

Iron is now worked mainly in the Sing Bhum region of Orissa. The principal companies which work these ores are Tata Iron and Steel Company, Indian Iron and Steel Company and the Bengal Iron and Steel Company. Out of about 3 million tons of iron produced in India in 1938 about 70 per cent was purchased by Japan. According to the reports of the geological department, it is surmised that the Orissa region can supply not only the needs of India, but those of the Eastern markets also. If this surmise is correct and if the potential sources of iron are as they are reported to be, and are only second to those of the United States of America, then there may not be any great harm in exporting pig iron to Japan or to other countries. But if that be not so, the exports of pig-iron to Japan and other countries cannot be looked upon with satisfaction.

Petroleum. Even when Burma was counted a part of India, the country was not at all rich in the production of petroleum, the production being about 07 per cent. of the total production of the world. Now that Burma has been separated from India, the country ceases altogether to be in the list of petrol producing countries. There are two provinces in India, Assam and the Punjab, which produced about 30 and 12 million gallons respectively, which is practically nothing as compared to the production of other countries.

Other minerals. Apart from these there are many other minerals which are worked in India. Salt is obtained from the salt range and Kohat mines in the Punjab. Mica is exported to America, England and Germany. It is used in the electrical industry, in wireless telegraphy, and for many other purposes. Manganese, which is very useful for the production of steel, is a very important mineral in India's possession. But this ore is also exported to foreign countries and steel is imported instead.

The following table will give an idea, however rough, of the position of various provinces of India, as regards the production of minerals.

Assam	.. Coal, Petroleum, Lime Stone.
Bengal	... Coal, Iron.

Behar and Orissa	... Coal, Iron and Mica.
Bombay	... Manganese.
C. P. and Berar	... Manganese, Coal, Marble, Stone.
Hyderabad	... Coal, Gold.
Kashmere	... Bauxite, Coal, Zinc, Copper, Lead.
Madras	... Manganese.
Mysore	... Gold, Iron, Manganese.
Punjab	... Rock salt, Lime Stone, Coal, Iron and Copper.
U. P.	... Coal, Iron, Copper, Zinc, Lime Stone.

The above description shows merely the distribution of minerals as between different provinces of India. It does not mean that these are actually worked in all these places on modern lines. U. P. and the Punjab, and also Kashmere, are places where there is no mining industry worth the name. The operations there are only on a small scale, and on old lines. Burma was the most important province of India in the matter of mineral resources. After its separation, India's position in this respect has greatly suffered. India is now poorer to the extent of 36 per cent. of the total value of minerals mined in the country.

Forests. The importance of forests in the economy of a country is very great. Their area in any region is determined by the amount of rainfall, the altitude and the nature of the soil. In regions where the amount of rainfall is heavy—and that is generally the case in places of high altitude—the growth of forests tends to be large. The nature of the soil has also a great effect. If it is chemically very fertile, and its mechanical texture is such that it can hold fast the widely expanding roots of big trees, the forests will grow in abundance. It is for these reasons that we find vast forests in hilly regions where all these conditions are satisfied. It is impossible for big trees to grow on land which is sandy and soft. Small plants, or agricultural crops, may grow in such soils, but not big trees, which require a firmer sub soil.

Forests are very useful for a country. They are the chief agency through which man can modify climate, to some extent at least. A hot and dry climate can be made less hot and dry by the plantation of forests, provided this is not rendered altogether impossible by the nature of the soil. A tree gets its food mainly through its roots. This food is assimilated only when it is mixed with water. It means that in order to get nourishment for itself, the tree must suck water from beneath the soil through its roots. Every part of the tree must get this food, and so water remains unceasingly in circulation, being constantly drawn up to the leaves and then let off to the surrounding air by means of evaporation. That underlying portion of water which usually remains hidden in the sub-soil and which would have, otherwise, remained beyond the reach

of man, is thus made available to the surrounding atmosphere, which, in consequence, becomes cooler. A cool atmosphere has a greater capacity to attract rain, as water vapour in the air is readily condensed when it comes into contact with a cooler atmosphere. Rains are in this way attracted by forests and the surrounding atmosphere gets cooler.

Forests serve another important purpose, in as much as they check the force of flowing water, either after heavy rains or during a flood. Not only do they check this force, but they also absorb through their roots and countless fallen leaves, quite a large quantity of water. This saves surrounding lands from erosion, which is the source of great loss to agricultural land and renders large tracts absolutely useless.

In India there is a great scarcity of fuel for domestic consumption. The amount of coal, already deficient in the country, is not fit for domestic consumption. In the form of coke it is not yet very popular. But even when it becomes so, it can be used only in towns and cities. It cannot be introduced in villages for a very considerable time to come. The village people do not get wood fuel in abundance, and at as cheap rates as they can afford to pay. There are no waste lands, no forests, and no large collections of trees to make fuel for domestic consumption easily available. So they use dried cattle dung as fuel. Also owing to the high price of wood fuel and perhaps other conveniences in the use of dried cattle dung, even those residing in big towns and cities use them as supplementary fuel. Consequently, numerous cart and ass loads of dried cattle dung are brought from surrounding villages to be sold in big towns and cities.

If along with the propaganda for the preservation of cattle droppings as field manure, a large number of trees are also planted to enable people to get cheap wood fuel, there will be a greater chance for the propaganda to succeed. We give below an extract from *'The Indian Peasant and his environments.'* It will speak for itself.

"The village Karimpur (Gurgaon District) is one of the modern villages of the large estate belonging to Major Skinner..... Among the tenants, as a result of the campaign for preservation of cow dung, the practice of "Upla, making" had been considerably reduced. But it was essential to make certain provisions for the supply of fuel, other than Upla. Therefore, the estate had taken care to grow trees and shrubs for supplying the villagers with fuel".

If other Zamindars begin to act wisely as Major Skinner has done, they will be doing a lot of good to their tenants and ultimately to themselves.

Apart from these advantages of a general nature, the forest wealth of a country is its very great asset. If properly utilised and worked, it replaces itself without any extra cost or trouble to men. A methodical and judicious utilisation and exploitation

of forests not only yields a steady annual income without impairing in the least their potential value, but it also helps to improve their present income-yielding capacity. For example, in a big forest, trees of high and low value are all intermingled. It often happens that big-trees of inferior value hamper the growth of neighbouring trees of a superior value. Consequently, those in charge of the forest cut down such big trees. The timber so yielded fetches some price, however small, while the growth of other trees possessing more valuable timber becomes rapid.

During the early period of the administration of the country by the East India Company there ensued a great destruction of forests. This lasted for more than fifty years, during which very great damage was done. Later English administrators showed greater consideration and far-sightedness in the matter, and since the time of Lord Dalhousie a definite policy was laid down for the preservation and scientific exploitation of forests. A large number of people living in or about forests, claimed traditional rights in this natural wealth and it was a stupendous task to prepare this record. Those whose claims were not recognised, felt aggrieved and suffered great hardships. However, the task was gradually and laboriously accomplished, and at present the rights of dwellers in the forests have been carefully noted and registered. In spite of this, there are frequent representations and appeals to the higher forest authorities for the recording of fresh rights or for the admission of old ones. The task of settling a forest is more difficult in some respects than that of settling a whole district!

In India there are five main types of forests —

1. *Arid country forests*, which, as their name implies, extend over dry regions, like Sindh, Rajputana and southern Punjab. The most important variety of trees in this region is the Keekar or Babul. Its timber, being dry and easily combustible, is widely used as fuel for domestic purposes, while its bark and fruits form an important tanning material.

2. *Deciduous forests*, which contain trees whose leaves fall in one part of the year and appear in another. The word 'deciduous' means 'not permanent' or more literally, 'liable to fall.' All such forests contain trees whose leaves fall off and then reappear. They extend over large areas in the Sub-Himalayan tracts, and the Peninsula of India. They are among the most important, as they comprise the greater part of the teak (Sagon) and Sal forests, also Sandal wood tracts of Mysore.

3. *Ever-green forests* are found in those regions where the amount of rainfall is very heavy. They run along the foot of the eastern Himalayas and on the west coast of the Peninsula. They are well known for the rich variety and luxuriance of their vegetation and yield timbers of great value, as black-wood, iron-wood and also teak. Besides, they yield very large quantities of bamboos and palms.

4. *Hill forests* are found at elevations of between 3,000 and 8,000 feet. They are found along the whole of the Himalayas and yield important timbers like deodar, pine, oak, and magnolia. The pine trees are well known for their hygienic properties, especially in diseases of the lungs. They are also otherwise important, as they are tapped for resin which is the most important minor produce of the forests and is used for a variety of purposes.

5. *The Littoral or tidal forests* are situated on sea coasts and deltas of rivers. The chief trees in such forests are mangrove and the sundari of the Sundarbans of Bengal.

Classification of forests For administrative purposes forests have been divided into four broad classes.

(a) Those the preservation of which is considered necessary on climatic or physical grounds. Their continued existence is important on account of their influence on rainfall and prevention of erosion by sudden floods.

(b) Those which are valuable from the point of view of their yield.

(c) Minor forests which contain inferior kinds of timber and are important for the production of fuel, fodder and grazing and other produce for local consumption. Such areas are of great importance for agricultural districts.

(d) Pasture lands. Strictly speaking they are not forests, but they come under grass lands. They are, however, managed by the forest department as a matter of convenience, and also due to their importance from the point of view of grazing.

The forests are also classified, but on a different basis, as (a) reserved, (b) protected and (c) unclassified State forests. In the reserved forests the rights of outsiders are carefully recorded and fixed at the time of settlement. The protected forests are those which have been taken up for the ultimate purpose of being included under the first class. In their case the recording of rights is not as complete as in the previous case, and fresh rights can also accrue. In the third class of forests, which are called unclassified, there is no systematic management, and the control amounts to nothing more than the collection of revenue, until these areas are either taken up for cultivation or classed as reserved or protected forests.

Forest Products. Forest produce is divided into two main classes.

(1) Major produce, which is timber and firewood and

(2) Minor produce, which comprises all other produce, excepting timber and firewood, as bamboos, fruits, resins, etc.,

The exploitation of forests has been carried out and developed very systematically in Germany and America. In Germany, more than a million persons are employed in working the forests, while more than three million persons are employed in the

working of raw materials obtained from forests. Exact figures are not available for India, but it is evident that a very large number of people get employment directly or indirectly on account of forests. This number can certainly increase, at least ten fold, if serious attempts are made in this direction. In India the Madras Government tried to use mechanical methods for the exploitation of forests on the American model, but it failed in this attempt. In the Andamans and Nicobar islands also, mechanisation did not succeed and the work of extracting timber was again left for elephants to accomplish. Elephants are used in India also, but where streams are available the work of transportation can be carried out more easily.

Forests contain raw materials for a number of important industries. Bamboos serve as an important raw material for manufacture of paper pulp. Sabai grass found extensively in Indian forests is also used for this purpose. Upto a few years back the general impression was that Indian forests did not contain any timber suitable for making match-sticks and match boxes. This impression proved entirely erroneous. The Indian forests now supply the entire requirements of match industry. Apart from these two industries a number of small ones also depend upon them.

Possibilities of Water power. The present war has given a great impetus to the industrial development of the country. If some big and heavy industries cannot be started as long as the war lasts, there is no doubt that immediately after its close there will be an outburst of industrial activity throughout the length and breadth of the country. For this industrial development power is needed. India has neither much coal nor any oil worth mention. Obviously, therefore, hydro-electricity is bound to play a very important part in the future industrial development of the country. Fortunately for us, our potential resources as regards this power are not only adequate, but superb.

Electricity has been very aptly described as white coal. The analogy brings out one important point of similarity, namely, the capacity to produce power; but it does not suggest an important difference between the two. Coal generates a large amount of heat in the process of yielding its energy, and so makes the surrounding atmosphere hot and murky. But this "White coal", although it yields energy much greater than that of coal, does not generate any appreciable heat in the process. Nothing, therefore, could be better adapted to the requirements of a country in the position of India than the development of hydro-electric resources.

After a careful survey it was established that India was really very rich in hydro-electric resources. A number of schemes were launched for the generation of electricity. Even before the publication of the Industrial Commission report, it was known that the Bombay Presidency held a unique position of importance due to the projected schemes at Lonavla, Andhra-valley, Nilamula

and the Konya valley. Accordingly, when these schemes were brought into operation by the unique enterprise of Messrs. Tata Sons, Limited, the industrial position and prospect of the Bombay Presidency underwent a great change. The schemes mentioned above have now a combined normal capacity of more than 250,000 horse-power and provide electric energy to the city of Bombay, its suburbs and greater part of Poona. The whole of Bombay, with a huge population of about 14 lacs, is served by these companies.

The Bombay cotton mill industry was running under a great handicap on account of the great distance of coal centres from its mills. The cost of transportation of Bengal coal was so high that sometimes it became cheaper to import coal from South Africa. After the Tata companies came into operation, the dependence of Bombay upon coal for power necessary to run the cotton mills diminished considerably. In addition to this the huge network of electric tramways in Bombay is now almost entirely fed by energy produced in the Tata Companies. A number of railway lines in this Presidency have also been electrified.

Important hydro-electric works have also been started in Madras. It is expected that about a hundred thousand horse-power can be developed by the Pykara hydro-electric scheme, which is a government scheme commenced at the end of 1929. The water utilised for the development of this scheme is taken from the Pykara river which drains the Nilgiri plateau having a catchment area of nearly 42 square miles. The average rainfall in the area is 110 inches per annum. There is another scheme in Madras known as the Mettur hydro-electric scheme. The Mettur dam, one of the largest structures of its kind in the world, is 176 feet high, and can impound a total of 93,500 million cubic feet of water. This storage, though primarily for irrigation purposes, is also to be utilised for the generation of hydro-electric power. The plant is expected to yield 60,000 horse-power.

Very great progress has been made in this connection in the United Provinces during recent years. Hydro-electricity is produced in these provinces from the falls of the Ganges canal, which begins from Hardwar. After every few miles there are falls. At Bhola and Bahadurabad (Meerut) Palra (Bulandshahar) and Sumera (Aligarh) these falls are utilised as power stations, and they are so connected with one another that if any one of them is closed for any reason, there cannot be any interruption in the production of electricity, which will continue to be supplied from the remaining stations. This system is called the 'Grid System.' In this way this Grid Area supplies energy to about 93 towns and covers an area of more than ten thousand sq. miles. It supplies power at fair rates to 14 districts in the west of the Province and to Shahdara in Delhi province for domestic, industrial and agricultural purposes. Seven out of the ten falls available have already been developed. A further steam station has been constructed near Moradnagar.

Besides supplying power to so many towns, the grid provides energy for irrigation pumping from rivers and open and tube wells. A large number of hydro-electric tube wells has been constructed and supply water to crops. This supply of cheap and handy power is producing far reaching changes in the areas concerned and the development of cottage and minor industries has been considerably encouraged thereby. (Also see Appendix A).

CHAPTER VII

SOME RURAL ECONOMIC PROBLEMS.

✓ **Land Tenures.** The word tenure is derived from a Latin word meaning 'to hold'. The phrase Land Tenure accordingly means those conditions or restrictions, rights and duties, subject to which land is held by one person from another. When land was abundant, none cared to appropriate it; but in the course of time it began to grow scarce and people began to acquire possession of it. Claims and counter claims began to be made and highly complex problems in connection with land ownership and land occupancy began to arise.

Three parties assumed prominence in connection with land problems. There was, first, the State, which wielded authority over its subjects and their possessions. Then there were the Landlords, a class of people who had acquired certain specific rights in the course of history. Lastly, there were people who actually tilled the soil, and used it as a means of livelihood. So in every country, three distinct parties emerged, all having some interest in the land, but of a varying nature. They are referred to as the supreme Landlord (State), the landlord, and the tenant. In the meantime a number of rules had been devised, and conventions established in different countries, governing the mutual relations of these three parties. These rules and conventions are known as systems of Land Tenure.

✓ **Land Tenures in India.** At the time of Manu, Hindu Rajas were considered to be real owners of land, as of every other natural resource. A standing tree belonged to the Raja, but when it was cut down and sawed, the planks belonged to the person who had devoted some labour to it. The entire land of the realm was regarded as the property of the ruler, though it was expected that he would administer it in the interests of the people. He allotted different plots of it to different people, according to their needs and requirements and they continued to recognise him as the real owner, and themselves as holders of land at his will. In consideration of this allotment and its attendant benefits, the ruler expected from the subjects some contribution towards the State. Naturally this payment was to have some connection with the nature and amount of land allotted to them. At first there was no very definite proportion between the amount of land allotted and the payment made in consideration thereof. But in course of time, this indefiniteness disappeared, and a definite proportion was fixed to be paid by the beneficiary to the State. This began to be called Land Revenue.

There is a difference of opinion among economists as to the relation of the ruler of the country to land in ancient India,

Some maintain that the Raja was recognised as the real proprietor and the payment that was made by the subjects to the State, in consideration of the land held by them, was in the nature of revenue. Others maintain that the ruler never demonstrated his proprietary rights and the people never recognised them. They, no doubt, paid him, or his officers, a particular amount, but so did many others who had no plots of land in their occupation. They regarded the payment simply as their contribution towards the expenses of the State and regarded it of the nature of a tax.

Any way, it is clear that even in ancient Hindu period, the State realised definite amounts of wealth from the subjects in return for the use of land by them. The Muslims, when they came to India, adopted practically the same system that was current during the Hindu period. Sher Shah tried to make the demand of the State more definite, and wanted to base it on certain specific principles, but the shortness of his reign did not permit him to do anything of the nature. It was only during the days of Akbar that Raja Todar Mal regularised the whole system of Land Revenue in the country.

Up to this time there were only two parties to the soil, namely (i) the State (ii) and the cultivator. The cultivator, in lieu of the land in his possession, paid every year a certain percentage of its gross yield to the state. The state on its part was responsible for the safety of his life and property. The third party, namely the landlord, had not till then appeared on the scene. The government officials collected revenue direct from the occupiers and users of land. It may be said as regards this period, that every cultivator was more or less, like a *Rayat*, under the present *Rajwari* System, with a right of continuous occupancy without any fear of an arbitrary enhancement of the revenue demand.

This state of things, however, did not last for long. Up to the death of Aurangzeb, every thing went on smoothly; but after his death there was chaos. Central authority began to grow weak, and after sometime it absolutely collapsed. Even during his life, signs were not wanting of the weakening of the central authority; but by his sheer will power he carried on things in the traditional way. Ultimately it became difficult to collect revenue from distant parts of the empire. Petty Rajas and Nawabs became autonomous and began to realise as much as possible from cultivators within their domain, by any method they found expedient. They appointed men with local influence as their agents for the collection of revenue, and promised them 10%, or one eleventh of their collection, as their own remuneration. This was the beginning of the *Zamindari* System. These agents gradually began to assume the role of the real owners of the soil and treat the cultivators as their own subjects.

With the growth of competition, rulers and provincial governors began to put these offices to auction. This created

further confusion and demoralisation. Irresponsible and unprincipled men came forward, made the highest bid, became agents for different local areas, and began to charge and realise as much as possible from the cultivators. It was no longer a question of a commission of 10% over the total collection, but of realising as much as possible by any means, fair or foul, from the peasantry, after paying a fixed amount to the State. The Rajputs, the Maharattas, and the Mohammedan Governors, all came practically into one line on this point. It was at this stage that the British acquired the Dewani Rights to realise revenue in Bengal.

Revenue Farmers The agents appointed to collect revenue, or land dues, were known as revenue farmers, as distinguished from agricultural farmers. At several places they utilised the waste land lying in the locality for their own purposes. They also bought off a number of small cultivators, and themselves began to cultivate the land, or get it cultivated through their own servants.

The East India Company did not introduce any new system, but adopted that which was then prevalent. Lord Cornwallis, when he came to India, found that the one time agents or revenue farmers had so far established themselves that it was impossible to do anything in the localities under their influence except with their assistance. Moreover, as he himself was a big landlord, he wanted to create in India a class of landlords similar to that in England. He could not find better men at that time in this country than these people; so he entered into an agreement with them on the old basis of 9/10ths of their collection as the government share, and the remaining 1/10th as their own share or commission. But this agreement was to be of a permanent nature. The Government demand, 9/10ths of the current collection, was sufficiently high for those times. Many of the revenue farmers, now designated as Zamindars, could not pay up this fixed amount at the right time, and so they had to go. Others were appointed in their places, and they tried to meet this heavy demand as best as they could. As time passed, and as the value of agricultural produce began to increase, they could collect a larger revenue from the cultivators. The Government demand being fixed, their own share began to increase, till it grew to large dimensions. This settlement between Lord Cornwallis and revenue farmers of Bengal, later on known as *Zamindars*, is known as Permanent Settlement.

The essential points about this settlement are mainly two. In the first place, the British Government in India recognised formally a class of people midway between itself and the tillers of the soil. Although in theory the middle man had appeared long before this settlement, there was no formal recognition of this class anywhere. After 1793, however, this intermediary class became definitely and formally recognized, with almost unlimited rights and powers over those who were engaged in agricultural operations in the area assigned to them. The

second point worth consideration is that the share of the government in the yield of the area under consideration was fixed in perpetuity, while that of the *zamindar*, though small in the beginning, was left elastic and could increase to any dimensions.

Advantages and Disadvantages of the Permanent Settlement. There is a serious difficulty in writing about the advantages and disadvantages of Permanent Settlement. It is due to the point of view which is adopted in the discussion of this question. The position in India is very peculiar, and at the same time, highly complex. We live in a world which is moving fast, but our own little world, India, is not moving fast enough, perhaps not moving at all. In spite of the right of self determination having been recognised by the entire civilised world in theory, we are still a subject nation governed by a foreign power. If there is any problem which affects the government in one way, and the people, or a part of the people, in another it becomes difficult to pass any judgment on its desirableness or otherwise. The interests of the Government and of the people have, somehow, begun to be regarded as at variance with each other. By the Permanent Settlement of Bengal, although the government seemed to gain in the beginning, and the *zamindars* to suffer, yet, after the expiry of some period, it became evident that the government had not been the real gainer, but that the *zamindars* had gained considerably. Out of a total rental of about £12 million per annum the governments of Bengal, Bihar and Orissa receive only about £3 million, while the rest remains with the *zamindars* for their private use. The loss to the government is a gain to the *zamindars*. People think that the government of India is a foreign government, over whose expenditure they have no control, while the *zamindars* are, after all, Indians, men of their own flesh and blood, who can certainly be induced to spend money for charitable and other useful purposes.

Ideas like the above are mainly responsible for the view that permanent settlement is a satisfactory and a beneficial measure. People sometimes demand an extension of this system in other provinces also, whenever the question of the settlement of a province comes up for discussion. At one time even in Government circles there were two views on the question. Some wanted its extension, others opposed it, but on different grounds. Sir John Shore who officiated for Lord Cornwallis during his illness, and for about 2 years after his death was against the creation of the intermediary class and against the permanent settlement. Ultimately his view prevailed, and although in provinces like U. P., C. P., and the Punjab intermediaries were recognised, the principle of permanent settlement was not extended to any other province.

The real fact however, is that the gain of the government is really the gain of the people, as a whole, while the gain of *zamindars*, or of any other class of people, is only the gain of a few private individuals. If to-day the government is unresponsive,

or an alien bureaucracy, the time is not distant when India would get Dominion Status or independence. When that auspicious time arrives, it will shock the people to know that they have been deprived of a number of important sources of revenue. The prospect will then become gloomy, indeed.

Let us examine the position of different Provinces in this respect. In Bengal there is no possibility of a further increase in income from land, unless the Government repudiates permanent settlement. The Bengal landlords are very rich, but neither can the revenue demand be enhanced, nor can their incomes, which are agricultural in character, be assessed to income-tax. In order, therefore, to meet the growing expenses of the administration of the Province the Government has to tax other people more heavily than it is perhaps justified to do. So, ultimately it comes to taxing other classes more heavily in order to let a rich class indulge in comforts and luxuries! If this point of view is adopted no one would like a Government to pass any measure which tends to make its sources of income inelastic and so incapable of further growth.

It was such considerations as these that brought about a sudden reversal in the policy of the Government of India in the matter of the settlement of other Provinces, when this question again came up for consideration. Madras was the next Province to be dealt with. About one third of it had been settled according to the old principle of a perpetual revenue demand. Then came a change in the policy, and fresh directions from the Directors of the East India Company. Consequently the Government refused to recognise any middle man in this Province, and elected to deal directly with the tillers of the soil, called Ryots (*Raiyats*). This system is known as the *Ryotwari system*. Here the revenue demand of the Government can be increased after 30 years, but it is definitely laid down that if the Ryot goes on paying the agreed amount of Government demand, he can remain in undisputed possession of his holding for any period whatsoever. On the other hand if he wants to give up his holding, he can do so after giving a short notice.

In this system the source of income is not altogether closed for the future. It can increase after the expiry of a definite period when the whole question of Government demand is taken up afresh. Also there is no intermediate class between the Government and the tenants. The permanent and *Zamindari* system of Bengal, Behar, and Orissa is almost diametrically opposed to that of Madras which is temporary and *Ryotwari*. In India these are the two main systems of Land Tenure.

There is however a third system which is found in the United Provinces, Central Provinces and the Punjab. It is a combination of, or, say, a compromise between, the above two systems. In this, middlemen are recognised and are known as *Zamindars*, *Taluqdars* or *Malguzars*. They are responsible for the payment of revenue which is determined from time to time. So far it resembles the Bengal system. But the land revenue demand on

the *Zamindars* is not fixed in perpetuity, but is liable to be revised after stated periods of between 20 to 40 years. From this point of view it resembles the Madras system.

The present position is that Bengal, Behar, Orissa about one third of Madras and one division (Benares) of U P. are permanently settled. In 1793, when Bengal was permanently settled, Behar and Orissa formed parts of it, and so did the Benares division of the U P. This explains why these areas were also settled permanently. Before a reversal of the policy was finally decided upon, one third of Madras had also been settled according to the old system. The remaining portion (two-thirds) of Madras Bombay, Sindh and Assam, are temporarily settled under the *Ryotwari system*. The United Provinces the Punjab, the Central Provinces, and the North-West Frontier Provinces, are temporarily settled, but middle men are recognised in all these areas. In the Agra Province they are called *Zamindars*, in Oudh *Taluqdars*, and in the Central Provinces, *Malguzars*. Where a single *zamindar* is not available to undertake the responsibility of paying the revenue to the Government, the entire body of petty proprietors of the area is made responsible to pay the revenue amount through its representative, known as the *Lambardar*. The area whose revenue amount is so arranged to be paid is known as a *Mahal*. This system prevails largely in the United Provinces and is known as the *Mahalwari system*.

The Rights of the Tenants In areas where the middle man was recognised, either under permanent or temporary system, the problem of *zamindars versus* tenants assumed a serious aspect within a very short time. The tenants had no rights in the beginning and were left entirely at the mercy of the *zamindar*. They could be turned out from their holdings at his sweet will, or more often, at that of his *Karinda*, and a demand for the enhancement of rents could be made any time. The tenants, finding no other alternative occupation, agreed to pay high rents which they knew they could never pay. The alternative being ejection from land, and then absolute darkness as regards any honest means of livelihood, the helpless tenants undertook to shoulder a burden far in excess of their strength and capacity! This was really the beginning of that heavy indebtedness of the agriculturists which now looms so largely on the horizon and which now challenges the keenest intellect for its solution.

The Government did move in the matter, but, as usual, only when enough mischief had been done. It passed tenancy laws in different Provinces safe-guarding the rights of tenants against the arbitrary action of landlords. Rules were passed in virtue of which tenants who had cultivated a plot of land consecutively for 12 years, acquired occupancy rights, under which they could neither be ejected from their holdings nor could the rent be enhanced, except through a properly constituted court under definite conditions. The history of tenancy legislation in India reminds one of repeated attempts by the owner of a *lakhha*-floored room to close big and small holes made again and again,

though at different places, by rats infesting the room. The tenancy laws acted mostly as palliatives, and could not cure the real disease. On the one hand, the settlement officers and different district officers were anxious to fix and realise the Government share in the *zamindar's* collection of rents at as high a figure as possible; on the other hand, due to increase of population, heavy pressure on soil, and the absence of other means of livelihood, the tiller of the soil was being thrown more and more at the mercy of the *zamindar*. The result of all this was not altogether unexpected. Although the tenancy laws passed in different Provinces of the country checked to some extent the high-handedness of the *zamindar* and that of his *karindas*, the condition of tenants did not very much improve, as the disease had reached an advanced state and demanded a more drastic remedy.

The Indian cultivators are not literate, and therefore not clever. They are simple and honest. But these qualities—simplicity and honesty—have proved a cause of their ruin. Their simplicity is exploited by clever people residing in cities and haunting the courts, while their honesty is exploited by the village moneylender. The tiller of the soil does not attract very great notice of the Government or of the educated classes living in cities. But now times seem to have changed. He has begun to attract serious attention of the Government, on the one hand, and of the non-official public bodies on the other. We have now special village programmes on the Government radios and organised village campaigns by non-official public bodies. Let us hope that this state of things will continue and will do real good to the much neglected rural population of India.

Tenancy Legislation. Various measures have been passed to safeguard the interests of the tenant in different Provinces of India. These attempts, although belated, have improved his status and position. He wanted fixity of tenure and fair rents, which go together. These two requirements have been fairly met by a long series of enactments and their amendments and modifications in one Province after another.

The first act of this kind was passed in Bengal in 1859, by the Government of Lord Canning. By virtue of this act all tenants cultivating land at the same rent for twenty years were declared fixed rate tenants. Their rents could not be enhanced in future. Those who held land for twelve years acquired the right of occupancy, which meant a fixity of tenure. Their rents could not be enhanced except by the decree of a court if it was satisfied that the rent of surrounding lands had gone up. The Bengal Tenancy Act of 1885 made these provisions more explicit. In this way the occupancy right was secured by a large majority (about 80 per cent) of the cultivators. An occupancy tenant could be ejected only for arrears of rents which could not be enhanced before the expiry of fifteen years. In 1928 the Bengal Tenancy Act of 1885 was amended to some extent. It permitted the Occupancy Tenants to dig tanks, build houses and cut down trees on the lands in their occupation.

In the United Provinces, tenants were given occupancy rights in 1833 under Lord Bentinck's administration. In Oudh the Oudh Rent Act of 1851 curtailed the powers of the *Taluqdars* for the enhancement of rents except through a court. The Agra Tenancy Act of 1901 introduced some further provisions for the accrual of occupancy rights. In 1911 the occupancy rights were enjoyed over nearly 68 per cent of the total area cultivated by ordinary tenants. In *Ryotwari* areas in Madras and Bombay, tenants were permitted to hold land for as long as they continued to pay the land revenue. They also enjoyed other rights like those of sale, inheritance, lease etc., without any restrictions.

Agra Tenancy Act of 1926. An important piece of Tenancy Legislation was passed in the Agra Province in 1926 called the Agra Tenancy Act. It comprised some clauses of a far-reaching character. Before the passing of this Act there were two principal classes of tenants in the Agra Province, the occupancy tenants, and tenants-at-will. The former could not be ejected from their holdings if they continued to pay rents regularly, and no enhancement of rents in their case was permitted except by the sanction of a court upon the fulfilment of certain conditions. These tenants, therefore, were quite secure in their possession. But the tenants-at-will, as their name signifies could be ejected from their holdings at the sweet will of the landlord, and he could also enhance rent whenever he felt inclined to do so.

The Agra Tenancy Act made all tenants-at-will, life tenants. They could not be ejected during their life time nor could their rent be enhanced. After the death of a life tenant, his heir could keep in his possession the holding on the old terms for a period of five years. After the expiry of this period a new agreement was to be entered into between the landlord and the new tenant, on such terms as were settled between them. The old cycle then continued. The tenant could not be ejected if he did not fall into arrears regarding the payment of rent.

While the status of the tenant-at-will was considerably raised by this Act, the occupancy tenants lost a little of their old prerogative. Before the Act of 1926, they could not be ejected under any conditions what-so-ever except when they fell into arrears. This Act, however, permitted *zamindars* to recover their lands from occupancy tenants on payment of 6 year's rent on the plot in question as compensation, provided that they wanted this land for the purpose of 'farming on improved lines'. A life tenant could be ejected by the *zamindar* on paying 4 years' rent as compensation to the outgoing tenant. The purposes for which a life tenant could be ejected, included the starting of an agricultural farm, the planting of a garden, the starting of an industry and so on.

On the whole, however, this measure was a very beneficial one, especially for the tenants-at will, and ultimately for all. A very great advantage of this measure was that it reduced litigation to a considerable extent. Moreover, tenants in general did

not suffer so much from inferiority complex as before the passing of this Act.

The Oudh Rent Act of 1925. The Oudh Rent Act was passed in 1925. The position of the *Taluqdars* is very strong in Oudh, while the tenants there are very poor and disorganised. Under this Act the tenants-at-will were made life tenants. Rent might be enhanced after 20 years, but even then it could not be enhanced except by the decree of a competent court. Thus, even in Oudh the position of tenants considerably improved after this legislation.

Other measures of rural reform Besides these tenancy laws which protected the tenants against the high-handedness of the *zamindars* certain other measures were also passed which had for their object the general improvement in the position of agriculturists. In Rohilkhand an Encumbered Estates Act was passed in 1903 which provided for the liquidation of debts with the aid of Government loans. In the Punjab an Act was passed which restricted the transfer of land only to members of those classes which were 'recognised as agricultural classes'. The purpose of this Act was to check the transfer of agricultural lands on a large scale to money-lending classes. It was passed in 1901 and is called the Punjab Land Alienation Act. The Bundhelkhand Alienation of Land Act, was passed in 1903 on the Punjab model. In Bombay a measure was passed in 1901 in virtue of which no occupant of land could alienate it without the previous permission of the collector.

The period and basis of assessment. The period of assessment of land revenue is different in different Provinces. In Madras, Bombay, Sindh and Assam, it is 30 years. The basis of assessment is usually 50 per cent, of the net produce. But here lies a great difficulty. The cultivator, illiterate as he is, does not know his expenses of cultivation. Not only illiterate cultivators, but even many people, in various walks of life, do not really understand the exact procedure of estimating expenses of production of a particular commodity. The Government officials at the time of fixing the revenue demand, are prone to be more partial to Government interests than to those of the poor, illiterate and unrepresented ryots. Under these conditions one does not really feel satisfied as to the methods adopted in calculating the net yield of a crop. Any way, such things are bound to continue as long as the ryot himself does not become enlightened enough or some one else, more enlightened and experienced than him, does not take up his cause.

In the United Provinces, the Punjab and Central Provinces, the period of assessment, which was previously 30, 25, and 20 years respectively, was increased to 40 years in the United Provinces and some parts of the Punjab. The basis of assessment was previously between 45 and 50 per cent of the rental value of the area assessed, then reduced to between 35 and 45 per cent. In the case of jointly owned villages under the *Mahalwari* system, and also in the case of peasant proprietors, the same method was

adopted as in *Ryotwari* areas. The idea was to take away about 50 per cent of the net yield from such lands after fixing its monetary equivalent on the basis of average prices

Recent Tenancy Legislation in various Provinces

See Appendix B.

Ideal System of Land Tenure in India

See Appendix C.

✓ Sub-division and Fragmentation of Agricultural Holdings.

Among the many important agricultural problems that are crying for solution in our country the one that is perhaps the most important and of a far reaching character, is that which is known by the name of consolidation of agricultural holdings. Let us first understand the problem.

India has always been mainly an agricultural country. Even during the ancient Hindu times, and the mediaeval Mohammedan period, the main occupation of the people remained agriculture. There were many important cottage industries, no doubt, which were in a highly flourishing state, but they were confined mostly to urban areas. The chief industry of India was always agriculture.

After the advent of the East India Company, or, we may say, after the Industrial Revolution in England and rapid development in the means of transportation machine-made goods began to be imported freely into India. The produce of Indian cottage industries could not compete with these machine-made goods and so, after some time many of the cottage industries had to be given up. The artisans, not finding any other means of livelihood went to the villages and as a last resort adopted agriculture as their calling.

Already there was enough pressure of population on the soil, but after this new migration from urban areas to the villages, the agricultural population increased still further. The land available for cultivation was divided among a large number of people and the sizes of individual holdings began to grow smaller. Influence of western idea on Indian minds, and the policy of English judges in India, the old joint family system began to give way before individualistic tendencies.

The younger members of joint families were no longer amenable to the strict discipline which the old system demanded. The spirit of self-sacrifice was on the wane, and each wanted to appropriate and utilise all that he produced with his own labour. Consequently, while at the outset there was only one big family agricultural holding, jointly cultivated, though severally owned, it was now splitted up into a number of smaller ones according to the number of members who wanted to go out of the joint undertaking. This tendency resulted in reducing the size of holdings still further.

The Hindu and Muslim 'laws of inheritance' also accentuated this tendency as they enjoined equal partition of property among all males, or, as in the case of Muslims, among all male and in a certain proportion among female heirs. These laws were, no doubt, in operation since a very long time, but their bearing on this problem became more pronounced when other causes also came into operation.

The cumulative effect of all these different factors was that the size of agricultural holdings became alarmingly small. But this was not the only evil. After the death of a person, his descendants partitioned among themselves each single part of their ancestor's land. Each field was divided equally, as it was supposed to be specially fertile, well situated, or auspicious. Even trees were sometimes so divided. If the deceased left an agricultural holding of 20 acres in two different plots of 10 acres each, both these plots were divided into as many parts as there were heirs. If he was a Hindu and left four sons, both his plots would be divided into small plots of $2\frac{1}{2}$ acres each. A holding which was previously divided into two parts would now be divided into eight parts. If he was a Muslim the division would be still more minute. So after a few generations agricultural holdings became not only smaller in size but also scattered at different places. The total area of a man's agricultural holding might be say, 10 acres, but it would not be all at one place, but scattered at two, five, ten, or even twenty or more different places. On such small strips of land it became very difficult to carry on any cultivation at all.

Its evil effects.

(a) **Waste of time, land and labour** If a cultivator has to look after more than one plot of land, it is evident that he will have to spend a greater amount of time in moving about from one plot to another. If this number is even 4 or 5, the waste of time and energy in moving the necessary implements and tools, and bullocks from one plot to another, must be enormous. It is not possible for a cultivator to efficiently look after more than one, or at the most, two fields situated not at a great distance from each other. Cultivators have to keep watch over their fields at night, in order to protect the crop from the depredations of jackals and other wild animals. When the number of plots is large, it becomes impossible to exercise this watch over all the plots. The erecting of fences round such tiny plots of land being out of question, there is a great loss, caused by neighbour's cattle which are deliberately left free to graze in unprotected fields. Even if fences could be erected and boundaries fixed, it would entail a loss of an appreciable area of land in proportion to the total area of holding. Some times the area of each part of a holding becomes so small that it cannot be cultivated at all. It becomes difficult even for the bullocks to turn round, owing to the narrowness of the strip. Many such plots of land are left uncultivated by their owners.

(b) **The size becomes un-economic.** On account of excessive subdivision, the size of the holding is reduced to such an extent that it becomes impossible to support a family out of its yield. This is the meaning of an un-economic holding. An economic holding is that which enables a person to support himself and his family according to the standard prevalent in the class of society to which he belongs. The size of such a holding differs from place to place and has to be determined with reference to a number of considerations. But whatever it may be, the holding becomes so small that it cannot support a family. In the absence of subsidiary occupations and any other alternative means of support the cultivator has perforce to lower his standard of living or begin to borrow, thus hastening his ruin.

(c) **Fruitful source of litigation.** Quarrels are frequent over questions of boundaries, grazing of neighbour's cattle in another's field, or trespass. With numerous tiny strips, into which a holding is divided, scattered all round the village, such quarrels become more frequent. The real curse for a cultivator is neither the zamindar nor the *sahukar* but litigation. A few law-suits and the cultivator, even though quite solvent before, begins to suffer from financial hardships, and, in course of time, becomes a financial wreck.

(d) **No agricultural improvement practicable.** Methods are recommended by experts and by experienced farmers which, if adopted, would improve agricultural output. But how is it possible for any kind of improvement to be introduced on such small strips of land? Fencing and enclosures, large scale production, better implements and tools, adequate supply of water, and so many other improvements are impracticable when the area of the holding is so ridiculously small. No agricultural improvement is possible as long as this problem is not satisfactorily solved.

Remedies. Numerous remedies have been suggested by those who have devoted considerable attention to the serious state of affairs. Many of them, however, seem to be either impracticable or inefficacious. Some recommend a modification in the Hindu or Mohammadan laws of inheritance. They are of opinion that the law of *primo-geniture*, as is prevalent in England, or among the *Taluqdars* of Oudh and the *Ismailia* community of Bombay, should be made universally applicable. This remedy, in the first place, does not seem to be practicable in the case of India, in view of the conservative and orthodox nature of the people, both Hindus and Muslims. In the second place, while remedying one evil it is likely to bring in another, in a new form. In England there is an acute problem of how to reduce the size of agricultural holdings. Moreover, our laws of inheritance are really not so bad as they have been made to appear. It is, no doubt, true that even very large holdings are, after a few generations, splitted up into a number of smaller ones; so much so that the owners of these small areas do not find themselves in a position to maintain their old standard, unless they stir themselves up and do some

work to supplement their earnings. In one sense it may be regarded as an evil, but in another there can be nothing better than this. It does not bring out the best in a man if he is not, sooner or later, thrown absolutely upon his own resources. One who has inherited a large property and is living upon its income may be a very good man after all, but it cannot be disputed that his capacities do not get adequate opportunities to develop. At their best, such men pass their lives in an unenterprising way, and do not prove of any great worth either to themselves or to their nation.

It is, therefore, not really an unmixed evil that owing to our laws of inheritance our big landed properties become parcelled out in small parts and very small and tiny ones. This is no reason why certain persons should continue to depend, from generation to generation, upon the hard labour of a good ancestor, and do nothing themselves to add to their income apart from what they get from their inherited property.

There is another point. We are here concerned not with the unit ownership, but with the unit of cultivation. This means that even if the unit of ownership becomes very small, there is no reason why the unit of cultivation should become equally small. If a certain person finds only a very small plot of land in his possession, there is no reason why he should not try to secure the neighbouring plot for purposes of cultivation and thus increase the size of his holding which otherwise would certainly remain uneconomic. Also, as far as the other evil, really the more serious of the two, namely fragmentation of holding is concerned, the laws of inheritance have absolutely nothing to do with it. It is always open to a number of co-heirs to settle things amongst themselves in such a way that although small, their holdings may not get scattered in different parts of the village. So a modification in the laws of inheritance, even if practicable, would not prove very advantageous or even efficacious, as it would only affect the unit of ownership, not the unit of cultivation.

Another remedy, which has been suggested, is to pass a law to the effect that the unit of cultivation should not be allowed to go below a certain limit, which should be fixed after taking into consideration a large number of things. This suggestion, if it can be carried out into effect, and if the practical difficulties in the matter of details can be surmounted, will certainly meet the situation to a great extent. This remedy will prove to be of a lasting nature, and will also leave the laws of inheritance untouched. It will not be easy to fix up the size of an economic holding. It will differ from one province to another, also, perhaps, from one district of a province to another district. It will depend upon a large number of factors like the nature of the soil, conditions of water supply, proximity or otherwise of markets, general art of cultivation as prevalent in a particular area, and the current prices. There must be difficulties in the way, but the problem itself is of such a serious nature that no

pains should be spared for finding a correct and permanent solution.

Consolidation of scattered holdings by Co-operative method. In the mean time, before any legislation of the nature described above is undertaken, another method can be adopted for minimising the evil effect of fragmentation as distinguished from subdivision. If a particular holding is scattered at different places in a village and there are numerous other holdings equally scattered far and wide, *there is no reason why the different owners of these scattered holdings should not come together and, by mutual give and take make their respective holdings compact.* No doubt, this requires vision, common sense and a spirit of accommodation. If some time is devoted in each village for explaining the advantages of consolidation of agricultural holdings, and an efficient machinery is devised and set in motion, the result must be highly encouraging. In the Punjab this work has been done by co-operative societies especially started for this purpose and known as co-operative societies for [the consolidation of agricultural holdings.

• These societies are composed of those owners of land who are interested in such a scheme and are affected thereby. The total land of the village is re parcelled out in such a way that what an owner has to give at one place he gets at another, so that when the operation is over he finds himself in possession of a solid continuous block of land of almost the same area and value as the sum of his numerous scattered strips of land before the scheme was set in motion. In the Punjab these co-operative societies are assisted in their arduous task by a special district staff which is kept and trained for this purpose. A number of suggestions are made and plots are parcelled and re parcelled a number of times in order to secure the consent of as large a percentage of co-sharers as possible. When, after some time, unanimity is reached the society is dissolved and the staff goes back. In this way, a very large area has been consolidated in the Punjab. About 13 lacs of acres out of the whole cultivated area of about 3 crores were redistributed by the end of 1941 and there were about 1,500 co-operative societies doing this work in the province.

It may be mentioned, however, that the remarkable success of consolidation societies in the Punjab has been due to the keen interest which certain high officials of the co-operative and agricultural departments have taken in the problem. The land revenue system in the Punjab is also simple as compared to that of many other provinces. Lastly, there is a large number of peasant proprietors who have now become wide awake regarding their true interests, and have also perhaps a greater spirit of compromise than their brethren elsewhere.

In the United Provinces the problem has become complicated on account of a very large number of tenants who do not own any land but are mere cultivators. Here it is not so much a

question if the unit of ownership as that of the unit of cultivation. There are in both Agra and Oudh, very big estates comprising sometimes hundreds of villages; but in each village the unit of cultivation is very small with the usual consequent evil results. Here the consolidation societies of a co-operative character started after the Punjab model have done some useful work and the total area consolidated was about 80,000 *pacca bighas* in 1939-40, the number of societies at work being 182.

Recent attempts to cope with this problem Although some useful work was done by co-operative societies started for this specific purpose in some provinces like the Punjab, Central Provinces, and the United Provinces, it was realised very soon that this method alone would not meet the situation. Permissive legislation was also tried at several places, but without any appreciable measure of success.

A new experiment was tried in Central Provinces where in addition to the co-operative societies, legislation for compulsory consolidation was passed in 1928. The Act was first brought into operation in the *Chattisgarh division* only and gave power to not less than half the permanent right holders holding not less than two thirds of the occupied area in a village to combine in a scheme of consolidation. When this scheme is confirmed it becomes binding on all permanent right holders in the village and on their successors. About 5,00,000 acres of land parcelled out into thousands of small and scattered holdings were consolidated at a cost of only 4 annas per acre.

A similar act was passed in the Punjab in 1936 and in the United Provinces in 1939. The United Provinces Consolidation of Holdings Act 1939 seeks to provide for the development of agriculture through consolidation which is defined as the redistribution of land between the cultivators in such a way as to make the cultivated area more compact. The proprietor of a village or mahal, or the cultivators of more than one third of the cultivated area in a village may apply for consolidation to the consolidation officer to be appointed by the Local Government. The Collector on his own initiative may also direct consolidation proceedings after due notice to the parties concerned. The consolidation officer shall make every attempt to ensure that as far as possible each cultivator is given land suitable for the cultivation of the principal crops grown in the village and that the valuation of the holdings allotted to a cultivator is equal to the valuation of his original holdings. When this is not possible, monetary compensation shall be awarded to equalise values so that the cultivators who get more value for their original holdings are to pay compensation to those who get less.

After the scheme is prepared it shall be published both in Consolidation Officers's office and in the village, where it can be inspected by anybody, and any objection to it may be filed within one month from the date of publication. Such objections shall be considered and decided by the Consolidation Officer in the

village in the presence of the parties themselves and the scheme shall be modified as may be found necessary in the light of the objections submitted.

It is hoped that the work will henceforth proceed rapidly in the U.P. and that consolidation will have substantial results to show in the near future. It should be borne in mind, however, that voluntary consolidation through Co-operative Departments or compulsory consolidation through legislation can only remove or reduce the present evil as it exists to day. This is only the curative side of the problem. But there is every likelihood of a relapse to old conditions if measures are not adopted to prevent the present consolidated holdings from being fragmented again in the future by the usual processes of inheritance etc.

Factors affecting Agricultural Improvement in India Improvement in agriculture can be effected by making an effective and efficient use of the several factors of production employed in agriculture. So far we have studied only one factor, namely, land. This topic will therefore be discussed only when we have finished the discussion of the remaining factors of production and so have finished the study of Production as an important branch of economic activity. So it will be discussed immediately before we finish Production.

CHAPTER VIII.

LABOUR

Meaning of efficiency. Efficiency is a relative term. It does not merely mean the amount of work done by a factor of production within a certain unit of time, it also means a comparison of this work with its cost to the user. The efficiency of a factor will be higher or lower according to the ratio between its output and its cost. If one labourer does a certain amount of work and is paid eight annas for it; while another does twice as much work and is paid fourteen annas, the second is more efficient than the first, because the proportion of his work is greater in relation to his cost. But if the second labourer were paid one rupee and two annas, he would not be regarded more efficient than the first. Quality of work is supposed here to be the same in both cases.

One point, however, may be made clear. If we compare the first labourer with the second, purely on personal merits the second labourer should certainly be counted as the more efficient of the two in both cases, that is to say, whether he is paid fourteen annas or one rupee and two annas by his employer. The mere fact that he can produce twice as much as the other during the same period of time proves that he is the more efficient of the two. But if we look at this question not from the point of view of the individual labourer, but from that of the organiser, or, of the industry as a whole, the second labourer would be regarded the more efficient of the two only when he costs less than double to his employer.

Factors determining efficiency of labour.

1 **Heredity.** The effects of heredity are not easily explicable but they are very important. There are certain classes in every society, the members of which are more efficient in the discharge of a particular work than those of other classes. It is not because their education or training has been different from others; or that they have had better opportunities in their lives to improve themselves than others have had. There is no apparent difference in the early education, opportunities and environment between them and others. All the same, the difference in efficiency is quite apparent. This is due to heredity or natural aptitude.

It is, however, very regrettable that due attention is not paid to natural aptitudes and inclinations of young boys and girls. A boy who shows an aptitude for mechanical work, is chided and roughly handled because he cannot get very good marks in literature or philosophy. Another who

shows an early inclination towards literature in general, is compelled to take up a higher course in mathematics, as his elders fondly hoped that he might be an Executive Engineer! Some people are foolish enough to start business without any aptitude or preliminary training while others with business tradition behind them are sometimes pushed up to occupy place which they cannot do with proper decorum.

If the influence of heredity on a person's efficiency is carefully observed and scientifically studied, and the knowledge so obtained is spread among interested people, great deal of waste of talent and energy will be avoided, and pitiable sights of failing attempts at fixing a round thing in a square hole, will become less frequent. The caste system prevailing among the Hindus was based upon a knowledge of the principles of heredity, and the object seems to have been to preserve the efficiency of certain classes of people in regard to certain occupations and other human activities. The effect of heredity and racial characteristics upon the efficiency of labour is considerable.

2. Climate. The effect of climate upon the efficiency of labour is quite obvious. A hot and damp climate is not favourable for physical vigour and strength; while a cool and a dry climate produces a wholesome influence upon a person's physique. The effect of a tropical climate upon physical energy is not good; and when heat is combined with moisture the region becomes very insanitary. The climate of Bengal, especially of the eastern part is not favourable for physical development. On the other hand, the climate of the Punjab, of western U. P., the frontier and places situated near the sea, is quite favourable for maintenance and development of physical vigour.

A temperate climate is certainly superior to a tropical one, as far as its contribution to physical efficiency is concerned. From this point of view European climate, as a whole, and also the climate of America, is superior to that of India. Some people maintain that a climate which is favourable for the development of physical powers of people, deadens their finer and nobler instincts; while that which is not very favourable for physical growth is more congenial for the unfolding and expression of inner faculties. Be that as it may, but there is no denying the fact that the amount of work, physical or intellectual that we can put during the cooler months is much greater than that which is possible during the hotter ones. Our climate and seasons have also made it impossible for us to stick to a particular routine of life for the whole year round. During the winter, for example, we must sleep inside a room, during the summer, in the open lawn or an open roof; while in the rainy season with its alternative dry and wet days we have sometimes to sleep in the open, at other times in verandhas or even rooms. But climate alone does not condemn a people permanently in regard to anything. There are so many other factors, which have to be taken into consideration, which more than counteract the influences of an unfavourable climate. And

then even climate can be modified, to some extent at least, by human ingenuity.

3. Availability or otherwise of necessities of life. This is the most important factor in determining the efficiency of labour. A person belonging to the best stock and residing in a country with the best of climate, cannot display any efficiency if he does not get enough food to eat, good water to drink, adequate clothing to cover himself against the inclemencies of the weather, and has no decent and comfortable house. These are elementary requirements of life which, if available, maintain and improve a person's efficiency; but if not available he is bound to grow weak and emaciated and consequently inefficient. The quantity and quality of food necessary for an individual, the amount of clothing and the nature of shelter are mainly determined by the climate of the country. The amount of food, and its quality should be such that it can maintain a person's natural growth and enable him to develop his physical and mental faculties. The amount of clothing necessary in a warm climate is much less than that needed in a cold climate. Mahatma Gandhi has been doing very well for a pretty long time with only a loin cloth and a chadar. The nature of shelter is also determined by climate. More durable buildings are necessary in cold countries where severe storms blow every now and then and snowfalls are frequent. Much less durable houses can serve the purpose in a hot or warm country.

4 Influence of the mother and home If a person comes out of a good stock, resides a country with a good climate, and has also a fair proportion of necessities, he has all the requirements of an efficient primitive life. These factors are equally necessary for the efficiency of animals. We now discuss those factors which are peculiar to man as distinguished from other animals. One is, the influence of the mother and the home. When a child is born, he knows nothing and nobody. There is only a sense of physical discomfort, now and then, which makes the child cry. The rest is a big void and confusion. But out of this confusion one thing which emerges, first indistinctly then more distinctly, is the image of a certain thing, brooding over it again and again—and that image is that of the mother. From that time onwards, till the child grows into a boy or a girl, and is sent to school, the mother's influence remains supreme and constant. This is the first school where a child receives his first training. The mother continuously directs, trains, and instructs the child and the response is quick and intelligent. A well trained and educated mother determines and moulds to a great extent the future of a child. The importance of female education acquires still greater significance when this point is kept in mind. If you educate a boy, you educate one person; but if you educate a girl, you educate a whole future family.

5 Education Education is necessary to bring out the best in man and to enable him to take an intelligent interest in things around him. Realising its importance leading nations of the

world have not left the imparting of primary education to boys and girls at the discretion of their parents, but have taken this duty upon themselves. It has been made free and compulsory by all important countries of the world for boys and girls above a certain age. India, however, is still where she was centuries back!

The importance of primary education cannot be underestimated. Most of the evils from which a country suffers are greatly diminished, even if they do not altogether disappear, when education becomes universal. Not only primary, but technical education is also necessary. Technical education should be of such a general nature that after receiving it, a person can learn the details of any trade or calling without any great difficulty. In India, while there is no provision for free and primary education, there is also no satisfactory arrangement for technical instruction. Private individuals who wield influence and possess resources are more anxious to start High Schools, Intermediate and Degree Colleges, but do not like to devote their money, time, and energy in starting and popularising technical schools. We find a senseless multiplicity of high schools in big towns and cities, but there are practically no technical schools started by private enterprise. It is high time that activities of people who want to add to the existing number of high schools, are resolutely discouraged. Provincial governments should stop giving aid to such institutions, and increase, instead, financial assistance to those of a technical character. In European countries, very great importance is attached to technical education which enables a man to acquire a general control over one's eyes and hands. For the industrial and agricultural development of a nation technical education is very important. The present war has given a great impetus to technical and industrial development of the country. On the other hand, unemployment amongst educated classes is increasing fast. This is then a suitable opportunity to give a technical and industrial bias to our education. The basic system of education has given promising results whenever it was given a fair trial as in the United Provinces. A bolder policy is now called for on the part of those in power.

6. Opportunities for short or long trips. A man's outlook becomes essentially narrow if he remains wedded to the place where he was born and bred. His outlook is bound to become broader if he goes out of his usual surroundings and observes men and affairs in different environments. In all schools and colleges the importance of trips is recognised. All leading industrialists have now begun to set apart a definite amount to be spent over periodical excursions for their employees. The education of an English gentleman is not complete unless he takes a round of the Continent. Millions of people, belonging to free nations of the world, undertake long journeys from one place to another, in order to see and know something of other places and countries, and thus broaden their outlook and enrich their knowledge. India being poor, her people, excepting Rajahs and Nawabs, cannot afford to undertake long journeys. But the

pity is that even those who can afford to do so, do not feel any urge in this direction. The Hindus of old realised the importance of this factor and established a number of religious institutions and shrines in different parts of India. They made it a religious duty of the people to go and visit such shrines. This enabled them to meet people of different parts of India and gave them an opportunity of knowing something about different parts of their big country and the various types and classes inhabiting it. Now-a-days, only old females, and a very few people, undertake these long journeys, but without getting the benefit latent in the system. The majority of people do not realise its importance, even if they have the means. Our schools and colleges confine their trips only to localities within the radius of a few miles, and do not like to spend any money over this important means of developing students' efficiency. Our industrialists also are not as solicitous of the interests of their employees as their European and American compeers. Everyone knows the great difference between running and stagnant water. Then why not encourage the travelling habit among our people?

7. General outlook on life. A factor of very great importance, but of a highly elusive nature, is the general outlook of a man on life and its affairs. This outlook is the resultant of a number of forces, more or less indeterminate, of a religious and political nature. Some men are born fatalists. Every thing is done for them by fate, and nothing by themselves. They cannot improve their position unless fate ordains it; and if they are placed in a difficult or humiliating position, they either silently bear it, or curse their fate for having placed them in that position. Such an outlook does not create a desire in man to be up and doing. Wrong interpretation of religion has had much to do with this mentality, but political and social influences have also contributed much to create this apathetic attitude towards life.

The political and social conditions in India are not favourable for brightening the outlook of a large number of people. There are caste and social restrictions, and many millions of people find themselves rivetted to positions where they were accidentally placed at the time of their birth. Such are the millions of untouchables in India, though of late there has been a marked change in their position and status due to the sincere efforts of the Congress. Political conditions also exercise a considerable influence over a man's general outlook. An educated Indian suffers in his spirits at the idea that he does not belong to the class of free peoples of the world. An illiterate cultivator knows and feels that he does not belong to that class or society to which the high officials of the district usually belong. They are of a different colour and complexion and have a different mode of living. Indians, therefore, both educated and uneducated, suffer from inferiority complex, while people belonging to free nations walk with their heads erect and spirits high, and are ever prepared to undertake risks for their nation.

To sum up, a better and more correct knowledge of the important tenets of Hindu and Muslim faith is one great necessity; the slackening of social bonds and social rigour and, as far as possible, equal and fair opportunities to every one to rise in the social scale is another; the improvement of India's political status is the third and last great necessity, as it will bring about a great change in the outlook of Indians on life and its affairs.

8. Adequate capital and expert guidance. The various factors affecting the efficiency of labour discussed so far relate to matters pertaining to the labourer in his individual capacity. These are factors affecting *efficiency in being*. The factor that we are now discussing affects *efficiency in operation*. However efficient a labourer may be from other points of view, if he is not equipped with up-to-date implements, tools and machinery, his innate efficiency cannot come into full operation. Give a first class labourer a third class tool, and a second class labourer a first class tool, the output of the second will very likely be greater than that of the first. An army composed of efficient and brave soldiers but armed with obsolete weapons of war will be surely defeated by another army composed of less individually efficient and brave soldiers but armed with modern weapons. As with the army of soldiers, so with that of the industrial or agricultural workers.

Yet again, even when armed with up-to-date weapons of war but not skilfully led an army will be defeated by another which though inferior in some respects as regards equipment is led by a brilliant general. If the industrial and agricultural workers are under the guidance of good and experienced organisers their output would certainly be greater on account of better methods of production prevalent in the factory under expert guidance.

PROBLEM OF POPULATION.

The problem of population is really as old as the world itself. Even in very ancient times the large scale migrations of hordes of people were mainly caused by deficiency of means of subsistence at one place, and their comparative abundance at another. During the hunting and pastoral stages in the history of man such migrations were numerous. When population of a region grew dense, and the means of subsistence scanty people began to think seriously of moving to a different place, 'to fresh fields and pastures new'. During the agricultural stage, migrations became less frequent. Agriculture can support a larger number of people than hunting or pastoral activity. But as time passed on, the growth of population became so large that people found it necessary to search after new places and areas for colonisation.

Malthusian theory of population. Thoughtful men in every age never lost sight of the fact that population had a persistent tendency to grow upto the means of subsistence. One comes

across repeated references to the possibility, even probability, of a time when it might become very difficult, for living beings to maintain their growth, if the means of subsistence did not keep pace with the increase in their numbers. Even before Malthus wrote his famous essay on population, Hume and Wallace in England, Franklin in America, Botero and Artes in France, and several others had expressed their ideas in almost identical terms. But not till Malthus wrote his essay on population, was this question brought prominently before the public eye. Godwin, an English writer, wrote a book, 'Political Justice' in which he painted the future of mankind as very bright. Malthus and his father entered into a discussion on this point, the elder Malthus supporting Godwin's views while the younger, the author of the essay on population, vehemently opposing them. The younger Malthus was perhaps so much satisfied with the strength and cogency of his arguments that he decided to publish them in the form of a book. This was the genesis of the famous essay on population written by him.

In this essay Malthus brings out and establishes two points: firstly, he proves, after quoting figures from almost every known country of the world, that the population of every country tends to increase very fast, and shows a tendency to double itself after every 25 years if it is not hampered by any outside influence. This increase of population he calls an increase in geometrical ratio, as 1, 2, 4, 8, 16 Secondly, he explains that the means of subsistence yielded by land, although they do increase if the land is properly worked yet they cannot increase very fast, at least not as fast as population. If population increases in geometrical ratio, means of subsistence may increase in arithmetical ratio, as 1, 2, 3, 4 5

After establishing to the best of his ability, these two points, he proceeds to derive conclusions from them. They are obvious enough. If population increases in geometrical progression, and means of subsistence in arithmetical progression, a time is bound to come when population, however small in the beginning, will outstrip the means of subsistence, however large at the outset. It will then be a very bad time indeed. The population will suffer in consequence of the scarcity of food. There will be either wars or diseases. What is then the remedy? Malthus suggested that if a man did not apply his own remedies, which he calls preventive checks, then nature will be compelled to apply her remedies, which he calls positive checks. By preventive checks he means moral restraint and the postponement of marriages to a later date. By positive checks he means famines, wars and epidemic diseases. He, therefore recommends that if man wants to avoid nature's wrath which is exhibited in the form of positive checks, he should begin to apply preventive checks.

This theory, we should remember, was propounded by an Englishman, and had a special bearing on the conditions of England as they existed at the time when he lived. Industrial

Revolution had commenced and the population of England was increasing fast. The advent of machinery had displaced labour even in England, and a large number of people had, consequently, become unemployed, and so were under fed and under clothed. The English Poor Law was being administered in a very inefficient and indiscriminate manner and even able bodied men asked for and were given relief. Demoralisation had spread throughout the realm, and the prospects did not look very bright. The trans-oceanic trade of England with India and America had not developed till then. Under such circumstances, it was not surprising to find Malthus stressing the disproportionate increase of population as compared to visible means of subsistence at the disposal of England at that time.

Earlier criticisms of the Theory. After sometime, however, England's trade with India and America assumed large proportions, and the means of subsistence within her reach began to appear so large that Malthusian theory soon fell into disrepute. Even before the development of this overseas trade critics of the theory were not wanting, after this development, however, criticisms of diverse nature began to be levelled against it. They were directed against his both propositions as also against the conclusion. Firstly, it began to be asserted that the tendency of population to double itself after every 25 years was very much exaggerated. It was pointed out that with the spread of education, man's power of fecundity begins to decline. So, with the spread of education amongst the masses, increase of population would automatically become less. Also, a rise in the standard of living of most of the civilised peoples of the world would be an insurance against an indiscriminate increase in numbers. A sensible man who did not want to lower his standard of living would never agree to marry, unless he was in a position to support himself, his wife and future children, according to the standard prevalent in his society.

The other criticism was directed against his second proposition, namely, that means of subsistence increase only in arithmetical progression. In this connection it was pointed out that, the problem was not that of under-production, but of over-production. The difficulty really was what to do with the large amount of goods that were produced every year, and for which there was not adequate demand, and not how to produce more goods to meet the demands of a growing population.

As a consequence people refused to agree with the pessimistic conclusion of Malthus, which was that they should either adopt preventive checks, that is to say, either not marry at all and remain celibates, or marry at a very late age, or they will have to suffer from such evils as famines, wars and diseases.

Later and Modern Criticism. The propositions laid down by Malthus and the conclusion he based upon them were so startling in character that people's attention was at once directed towards them. The reactions were widely different. There were some who agreed with everything that Malthus wrote; there

were others who did not agree with anything. These latter were his earlier critics. Force was lent to their wholesale criticism by the spectacular development of trans-oceanic trade between widely distant lands like England and India or England and Australia and America. There were yet others who were immediately set athinking and who began to study the problem from different angles of vision. Marshall belonged to this category.

Discussing the Malthusian theory, Marshall divides it into three parts. The first dealing with the increase of population; the second dealing with the increase in the means of subsistence and the third dealing with the conclusion. Regarding the first he says that Malthus was right in emphasising the danger of a too rapid growth of population, a fact which he had taken great pains to illustrate from ancient and modern history of his times. But regarding his second proposition he says that Malthus underestimated the productive capacity of people as he could not foresee the sudden opening of the world markets to England due to development in the means of transportation. With one of the two propositions having been proved defective, the conclusion based upon them could not be quite correct. Some modification was therefore necessary which when made would not leave the future of mankind as dark as pointed out by Malthus.

This was the nature of criticism of the more thoughtful and the more moderate section of his critics which held the field for a considerable time. But the beginning of the 20th century saw thinking men the world over again seriously discussing the danger of over population. A school of New-Malthusians came into prominence, whose votaries again began to press the two propositions laid down by the Master and his conclusion upon public view. By skilful interpretation they tried to remove the patent irregularities from the original thesis. They began to say, for example, that Malthus had introduced the phrases 'geometrical progression' and arithmetical progression not in their literal sense but only to illustrate a tendency. What he really meant to say was that there was an inherent tendency of population to outstrip the means of subsistence, and that if a conscious attempt was not made to keep it in check, the result would be disastrous for mankind. Besides the postponement of marriage to a later date or giving it up altogether, they now openly recommend the adoption of contraceptive methods, better known as methods of birth control. They do not regard this as vice and so they differ widely in their outlook and methods of reform from others more orthodox or religiously minded.

It is an admitted fact, however, that population has a tendency to increase upto the limits of the means of subsistence; but man has always been fighting against natural tendencies, and his progress is really measured with reference to the control that he has acquired not only over external nature but also over his own self. He can, therefore, reduce the rate of this increase by certain self-imposed restrictions, and there is no reason why he should not do so.

Sometimes it may be necessary, for reasons of high politics, to bring about an increase in the number of people residing in a certain country, if there are enough means of subsistence, and not enough people to exploit the country's resources. There is no reason why under such circumstances the population of a State should not be encouraged to increase up to the point when it can exploit the resources of the State with the greatest efficiency. At this point the population will be such that under the existing conditions of wealth production the amount of wealth per head will be the greatest. This point is called the optimum point upto which population can increase advantageously. But when this point is reached, any further increase cannot be in the best interests of the nation. So an optimum point of population is one below or beyond which any decrease or increase of population is injurious to the interests of the State as a whole. It is the duty of statesmen to regulate population with reference to the country's resources in such a way that it may not remain much below or may not go much above the optimum point. It is difficult, of course, to determine with any exactness this optimum point of population with reference to any country, as so many things have to be taken into consideration before coming to any final decision. But what cannot be accurately determined by deductive or inductive methods, can be roughly guessed by a careful observation of the symptoms, some of which have been discussed above. In Italy, for example, and also in Germany attempts are being made to bring about an increase of population. This attitude, however, does not seem to be based on purely economic grounds but is perhaps, a part of a bigger political policy. We now (1943) know that this attempt to increase population was simply a step towards preparation for war.

So, there is no reason why attempts should not be made, either to increase population, if circumstances and conditions of a country so demand or, sometimes to check its growth if this course is considered to be in the best interests of the country. Preventive checks should be applied, to which may also be added, under certain conditions the method of birth-control. But a check of population is not the only remedy at the disposal of a nation that wants to improve its economic position. Side by side with attempts to check the growth of population, production of wealth should also be accelerated, so that the wealth and income per capita may increase and the country may increase in prosperity in a short time.

✓ INDIA'S POSITION

The theory is, however, perfectly applicable to Indian conditions today, even more than it ever might have been to those of England in the beginning of the 19th century. We know only too well that the population of India has increased almost by leaps and bounds. During the decade ending 1931 the increase was as great as the whole population of great Britain! Between 1931 and 1941 the increase was, about 40 millions! This large

increase is not accompanied by an equally large increase in the means of subsistence. In the case of England, America and some other European countries, the increase in wealth production has been much more rapid than that in population, but in India, although theoretically it may be said that the production of wealth during the last two decades was a little more in proportion to the increase in population, yet, for our practical purposes, this fact is of no importance. It is not merely the increase of wealth that has to be taken into consideration, but also its distribution; only then can we determine whether the country, as a whole, is in a better or a worse condition than some time back. In India we find that the distribution of wealth has been very faulty, while the production has been very scanty. We are, therefore, safe to conclude that during the last two decades the position of the Indian masses has deteriorated to a very great extent.

This does not require any argument or proof. Let any one who has eyes to see go to any village even in the most prosperous province, and in the most prosperous district of that province. What he sees there will at once convince him that India's position has worsened a great deal. Weak and emaciated men and women, half fed and half clothed, living in low roofed, kachcha houses, scattered here and there in dirty and dreary streets with no arrangements for drainage will meet his eyes. At the same time, he will find quite a large number of half or completely naked children roaming about aimlessly near the village tank, or nominally looking after the grazing cattle. The high birth rates and equally high death rates are another proof of the deplorable state of things in India. Female mortality is high and infant mortality higher. The standard of living of the people is very low, though it cannot be said definitely whether it is lower than what it was before. That some people in villages, and a large number in big cities and towns have begun to consume articles of western make, is no correct indication of a rise in the standard of living. It only shows that people in villages have begun to come in closer contact with those residing in big towns and cities, and have learnt some of their bad habits. It also shows that many people have begun to ape the superficial manners and customs of the westerners or of those who can afford to spend large amounts of money not earned by themselves but by their forefathers.

Looking at their standard of living from other points of view, we find that although the desire to live a better life has recently begun to grow here and there the capacity and ability to do so is sadly lacking. They want to consume more than what they produce. The result is that they are now more unhappy than they were sometime back.

India has not only to support her own 388 million people out of the produce of her land, but has also to export every year a large amount of raw materials to other foreign countries in order to enable her people to import those things which they either actually need, or for which they have, not very rightly, developed a demand. Land is consequently over-burdened and everywhere

its yield is diminishing in proportion to expenditure. If we compare India with England, the contrast becomes palpable at once. England with a population of about 4 crores is a highly manufacturing country. Land is not over worked and at certain places is actually enjoying rest. As people are not very much inclined towards agriculture she exports finished products to the world, especially to her undeveloped colonies, and her great dependency, India, and gets agricultural materials and articles from India, her colonies, and other parts of the world. The wealth per head of population is increasing, and every year the nation invests a large amount of savings. For any surplus in her population, if there is any at all, there are vast colonies which are ready with outstretched hands to welcome the immigrants from Home.

In India, on the other hand, conditions are entirely different. She is an agricultural country with very few manufacturing industries, and having to export large quantities of raw materials in exchange for finished goods. Population is immense and it depends and subsists largely on agriculture. Land has to be cultivated year in and year out, and in every season of the year, without any possibility of rest. As pointed out above, high death rates/high birth rates, high female and infant mortality are met with everywhere. There is no possibility of her surplus population settling anywhere. Indians are not welcomed by any country, not even by those who are never tired of calling the British Empire a big family, where each member has a regard and affection for the other. The latest instance in this regard has been the legislation in South Africa which keeps out naturalised South African Indians from certain residential localities which are reserved for Europeans. The Indian is not allowed to settle even in British colonies.

Under such conditions is it not right to say that the theory of Malthus applies perfectly to India? As Indians did not adopt measures to check the growth of population, and also did not work hard enough to increase the means of her subsistence; that is to say, because they did not apply preventive checks, positive checks have begun to come into operation. As a consequence, birth and death rates have become so high and the average age so low. Taking the world as a single unit and not confining our attention to the peculiar conditions prevailing in a particular country at a certain time we would not be wrong if we say that there is a great element of truth in what Malthus said about 150 years back.

INDIAN LABOUR.

Occupations The following table shows the distribution of occupations per 10,000 livelihoods, according to classes and sub-classes.

(a) Production of raw materials	...	...	6584
(i) exploitation of animals and vegetation	..	..	6560
(ii) exploitation of minerals	...	...	24

(b) Preparation and supply of material substances	1756
(i) Industry 	1038
(ii) Transport 	165
(iii) Trade	553
(c) Public administration and liberal arts.	286
(i) Public force 	56
(ii) Public administration ...	69
(iii) Professions and liberal arts	161
(d) Miscellaneous 	1374
(i) Persons living on their incomes ...	16
(ii) Domestic service	751
(iii) Insufficiently described occupations ...	503
(iv) Unproductive	104

Efficiency of Indian labour In order to form an idea about the efficiency of Indian labour, it is necessary to determine the extent to which the factors affecting efficiency of labour, in general, are in operation in our country. In a previous discussion, eight factors have been mentioned which affect general efficiency of labour. Let us briefly re-examine each factor with a view to determine its applicability to India.

(1) The first is *heredity or racial characteristics*. Indians come out of a stock which has been remarkable in the history of the world for its achievements. People of Northern India belong mostly to the Indo-Aryan race, which is well known for its achievements in every walk of life. People of Southern India, either belong to the pure Dravidian race, or to a mixture with the Aryan race. The Dravidians assimilated Aryan culture to such an extent that they not only became indistinguishable in the course of time from their Aryan conquerors, but very soon began to outshine them in many spheres. No one can say that the south is in any way inferior to the north. The keenness and profundity of Dravidian intellect is too well known to need any detailed description.

The other races and tribes that came into India during the course of her long history were absorbed and assimilated by the previous inhabitants and rendered indistinguishable from the rest. Then came Muslims who belonged either to the Mongolian or the Semitic race, both of which have made history in different parts of the world. They, too, settled in the country and got mixed with the people. They are now quite indistinguishable from the other inhabitants except that they profess a different religion. So we can say that *in the matter of stock India is not inferior to any country of the world*.

(2) The second factor is *climate*. In this respect India may be said to suffer as compared to other important countries of the world. But enough has been said in this connection while discussing the general effect of climate on the efficiency of

labour. Only one thing should not be forgotten. It is that the Indian cultivator is the most laborious worker in the world inspite of the climate.

(3) The third factor is availability or otherwise of *necessaries of life*. The Indian labourer does not get enough food to eat, pure water to drink, adequate amount of clothing to decently cover his body or to sufficiently protect it against cold weather, and a dwelling worth the name to live in. Under such conditions his efficiency is bound to suffer immensely. It is really a marvel to see the Indian labourer working as efficiently as he does, when we know that he lacks even necessities of life.

(4) Then comes the *influence of the mother and home*. The Indian mothers being mostly illiterate, and the Indian homes and surroundings, especially in the villages, being not upto the mark, Indian labour cannot derive any benefit from this source. On the other hand, an illiterate mother and an uncongenial home and surrounding produce an adverse effect.

(5) As regards *education*, which is the fifth factor, not much need be said. After about 200 years of British rule in India, illiteracy is still enormous. About 90 per cent of the people are illiterate. *Technical education* is as much lacking as primary education. Here, too, the Indian labourer suffers.

(6) *Opportunities for travel* are practically nil. Due to extreme poverty the vast bulk of the people cannot afford to leave their places of residence. They are naturally a stay-at-home sort of people; lack of good roads and their own scanty means have further accentuated this tendency.

(7) *The general outlook on life of the Indian labourer is dark indeed*. His political and social status is not worthy to be proud of, and the state is not very sincere or zealous to improve it in the right way. Labourers in other parts are demanding the right to live, the right to work, and the right to the whole produce of labour. Each one of these demands is of a far reaching character. The right to live means that a person living in an ordered society or state has a right to live, that is to say, it is the duty of the state to support those who have been somehow incapacitated and are now quite unable to work. The rights to work means that it is the duty of the state to provide work for every able bodied person when he is willing to do so. The duty, therefore, of reducing or removing unemployment falls entirely upon the state. Then comes the right to the whole produce of labour. It signifies that the state should see that employers do not deprive labourers of their rightful share of the wealth which they have helped to produce. These three rights demanded by organised labourers all over the world have been recognised to a great extent by leading countries. Indian labourers, not being well organised, cannot make their voice felt.

(8) Lastly as regards the *adequacy of the amount of auxiliary or instrumental capital*, or in the matter of the latest type of

organisation, the Indian labourer is also at a very great disadvantage. His implements are primitive and the method of work out of date.

☞ we come to the conclusion that if Indian labour is not as efficient to-day as that of other important countries of the world, it is not because it does not possess the capacity to become highly efficient. If only a few of the eight factors of efficiency discussed above are brought into operation, Indian labour will improve marvellously in a very short time. It can very well work under difficult and trying conditions, and can adapt itself to changed circumstances very readily. In 1915, when Sir Thomas Holland was entrusted with the duty of developing the leather industry of South India, he made arrangements for the training of Indian labourers, and he was agreeably surprised to find that they learnt new methods of production very quickly. European observers have been equally surprised to see Indian labourers working so efficiently in the huge iron and steel concern of Messrs. Tata and Sons at Tata Nagar. The whole company, which is second of its kind in the British Empire, is run almost entirely by Indian management and exclusively by Indian labour.

As regards agriculture, the Indian cultivator can pick up and understand almost any thing that is explained and demonstrated before him. As an artist, he is second to none in the world. Indian artisans have made a name in the world which will go down in history, and no one in any part of the world has excelled or even equalled him in the fineness of touch and the delicacy of design. During the present war the Indian labourer has learnt to produce many things in a surprisingly short time and has successfully handled highly intricate and complicated machines. We may conclude then that Indian labour possesses a very great capacity to learn and to improve, provided that necessary steps are taken by those who are in a position to do so. There is nothing initially wrong with Indian labour, and there is no reason why Indians should suffer from inferiority complex in this respect.

Density of Population and its causes By the density of population we mean the number of persons living in a given area. Density of population in any country is determined by several factors.

(a) It is greater in plains where movement of men and goods is easier than in a hilly region where it is not so. Those Provinces of India which have a large proportion of plains are more densely populated than others which comprise large hilly regions. Compare Meerut Division with Kumaun Division.

(b) Then, if the soil is fertile and easily cultivable, more people would like to settle there; if it is hard and not fertile, the density remains very low. A fertile soil can support a large population. Compare the Indo-Gangetic plain with regions South of the Vindhya,

(c) The area which has a trying or unhealthy climate will not attract many people. Those plains which suffer from intense heat, or which are susceptible to malaria or other diseases, remain thinly populated. The deserts of Sindh and Rajputana, and the Tarai portion of the sub-montane region, are very thinly populated.

(d) Before the advent of railways, and the construction of *pucca* roads, rivers helped in moving goods and men from one place to another. They also provided plenty of drinking water, and served as bathing and swimming resorts. For these reasons all ancient cities in India and elsewhere, are usually found on the banks of rivers and their basins are usually thickly populated.

(e) Water being a very great necessity for Indian agriculture, the density of population tends to increase in those areas which are served by canals. In the Punjab, those areas which were at one time deserts became smiling plains after the opening of canals and the density of population increased very rapidly. Such are the canal colonies in the region of the Sutlej and the Jhelum.

(f) Those regions which are served by railways are more thickly populated than others. Although the railways were constructed only in such areas which were already thickly populated for other reasons, they became still more so; while fresh ones, which previously were either not populated at all, or were very thinly populated, began to show signs of increasing life and the density of population increased considerably.

(g) In modern times, on account of the development of Industrialisation, certain areas of purely industrial nature have sprung up in different parts of the country. Cotton industry has become localised in Bombay and Ahmedabad, jute industry in Bengal, near Calcutta; iron and steel industry near Tatanagar, leather industry at Cawnpore and Madras, and so on. These industrial centres have attracted large numbers of people from surrounding regions. The percentage of labouring population to the total population is very great in such areas. Other minor or subsidiary industries have also sprung up, and so they are now the most densely populated parts of the country. There are some centres which, though not of industrial importance, are very important from the commercial point of view. They serve as distributing centres, mainly because they are easily approachable and are situated in a central position. Such are Amritsar, Delhi, Cawnpore, Surat etc. Naturally their density is very great as compared to other areas.

(1) Growth of Population in India and its Density

Year	Nos.	Density.
1872	20,61,62,000	206
1881	25,38,96,000	185
1891	28,73,14,000	181

Year	Nos.	Density
1901	29,45,61,000	167
1911	31,51,56,000	175
1921	31,89,42,000	177
1931	35,29,86,000	195.5
1941	38,80,00,000	

Density in some other countries.

Belgium	654	France	184
England and Wales	649	U S A.	32
Germany	332	New Zealand	1.18
Japan	215		

Indian Cities and Villages The number of villages in India is more than 600,000 and that of towns and cities, over 2000. Only ten per cent of the total population of India lives in cities, the remaining 90% lives in villages. Cities whose population exceeds 100,000 number only 36, the largest number of such cities being in the United Provinces.

Migration The movements of population are of two kinds (a) within the country (b) outside the country. As regards movements within the country, it may be said that they are mostly due to the migration of labourers, either from one province to another which has a greater demand for industrial labour of a particular type; or from rural areas to the urban areas in the same district or province, on account of better means of employment offered by some urban areas as compared to villages. The inter-provincial migration is entirely of an industrial character. People go from one district to another in the same province, or from one province to the other, when some industries offer a larger scope for employment to the industrial population. Bombay, for example, attracts labourers, not only from its surrounding districts, but also from distant places like the U P, the Punjab and the Frontier Province. Calcutta, Nagpur, and other industrial centres, also attract labour in the same way from surrounding regions. This labour is not usually of a permanent character. Labourers leave their homes only for a short period. Their purpose is to earn something in a few years and then return to their old villages if possible with enough money to marry and purchase a plot of land. This migratory character of India's industrial population has a very unsettling effect upon her industrial development. It is necessary in the interests of different industries that the labour population becomes of a more permanent character. If conditions of living in these industrial areas are improved, it is very likely that labourers may make such places their permanent home. In Ahmedabad and Bombay, industrial population has begun to assume a more permanent character.

The other movement, from rural areas of a district to the urban, is very slow but steady. Big towns are increasing in population, not only on account of the natural increase but also

due to fresh immigrants into the city from the surrounding rural areas. They, too, go back to their villages, as soon as circumstances permit; but some of them make these cities their permanent home, and cut themselves away from the bonds of the joint family and home. Educated sons of cultivators, who get jobs in various government departments and elsewhere, adopt residence in cities, and after retiring from their service usually construct a house for themselves in the city of their adoption, which henceforward becomes their permanent home.

Apart from these movements, there is no other regular or methodical movement of population from one province to another. There are some provinces, very densely populated, and others which are very thinly populated. Assam, for example, has a density of only 152 per square mile; and C. P. and Berar, of only 160; while Bengal and U. P. have a density of 650 and 450 respectively. If the question is carefully studied, and some means of employment are discovered for the people, it may be possible to induce a part of the population to move and settle in another. But the mere fact that one province is more thickly populated than another, does not necessarily mean that the pressure of population is greater in the first than in the second. On the other hand, it may be that a province with a higher density has enough resources to support even a larger population than one with a lower density which may have already reached its saturation point. Suggestions for the movement of population from one area to another should be based upon a number of considerations. It is possible that if the important question of redistribution of population among different provinces and states of India is seriously taken up for consideration by a committee especially appointed for the purpose, it may be in a position to recommend measures of a practicable nature. This will undoubtedly result in a reduction of pressure of population in several areas of the country which need this sort of relief.

The movement of population from India to foreign countries, or to other parts of the British Empire, and *vice versa*, is not very important. Of the total population, only about 7,50,000 were enumerated as born in other parts of the world. Of these about 6,00,000 were of Asiatic birth, 1,20,000 of European birth and about 20,000 born elsewhere. The emigration from India is approximately about 2½ millions. So the balance of migration is against India. Nearly all the emigrants are residents of other parts of the British Empire.

The problem of Indians overseas has assumed very great political importance on account of unsatisfactory treatment meted out to them by the people of these countries. This ill-treatment, it is said, is either based upon colour prejudice, or is due to the instinct of self-preservation. If it is due to the first cause, it is highly regrettable; if due to the second, and so based on economic grounds, it can be amicably settled after a free exchange of views between the authorities of the countries concerned.

HEALTH AND VITAL STATISTICS.

The general conditions under which the vast mass of Indian population lives at present are such that the health of the people can never remain as satisfactory as one would wish it to be. When people do not have enough to eat and drink, and have to live in unhygienic and insanitary surroundings; also when owing to the appalling illiteracy of the masses, they do not understand even the elementary principles of personal hygiene, the duration of life under such circumstances cannot be long, and the death rates are bound to be high. When, for any reason what so ever, a person becomes weak, his body becomes an abode for any kind of infectious or poisonous germs, which enter, settle, and thrive there. There are both healthy and unhealthy germs in a body. If the proportion of the healthy germs is large, as it always is in the case of a healthy person, they destroy the unhealthy ones, when they enter the body. When a man becomes weak, the number and vitality of the healthy germs decrease. The result is that when unhealthy germs enter the body they cannot be over-powered by the weak and diminished healthy germs; but on the other hand, the healthy ones are overpowered by the unhealthy and injurious germs, and the person falls a prey to any disease. The fact why a number of diseases have made India practically their home is due, in a large measure, to the reduced vitality of her people.

The system of treatment of various diseases, wherever it exists, is mostly of an exotic character. The allopathic system of treatment has, no doubt, done wonders in the surgical field; but in that of medicine it has not very successfully adjusted itself to Indian conditions. The indigenous systems of treatment, namely Ayur-vedic and Unani, are in accordance with the nature and temperament of the people; but they have not received proper encouragement from the government, and so cannot do that amount of good of which they are capable. In spite of this, they serve a much larger number of people than that served by Allopathic system.

Below are given certain approximate figures which may prove instructive by comparison.

Country	Birth rate per 1000 of population	Death rate per 1000 of population
India	36	22
Great Britain	19	12
France	18.8	17.5
Germany	20.7	11.9
Italy	27.8	16.8
Japan	33.8	21.2
Australia	22.9	9.4
Newzealand	21.1	8.7

The above figures are highly significant. Our birth rates and death rates are highest compared with other countries of the world. This is a very serious state of affairs. There is a great deal of

pain and suffering both at the time of births and deaths. If the number of each can be reduced, the amount of pain and suffering will be reduced accordingly. Even if we want the same net increase in our population that we are having now, it can be achieved by reducing proportionately both the birth and death rates.

Causes of high birth rates It is, however, impossible to bring about any reduction in these rates, unless reforms of a radical nature are introduced. There are several reasons why our birth rates are high. The system of child marriage is responsible to a large extent for the high birth rate, and also the high infantile mortality. Young girls give birth to undeveloped children, and so they die at a very early age. Other causes are the system of universal marriage, both amongst the Hindus and Muslims; the system of polygamy among the Muslims, and also, under certain conditions, among the Hindus; the utter disregard of the future of the children that are brought into the world; the religious and social necessity of a male off-spring; the desire to bring about an increase in the number of people belonging to one's religion or community and contemptuous treatment of the woman who has not been able to give birth to any child. If each of these factors is studied carefully, in all its bearings, and proper remedies are discovered and applied, there is no reason why the birth rates should not come down to a normal figure.

Causes of high death rates The death rates are high because children are born who are very weak and cannot withstand the rigour of any season. Young mothers generally give birth either to children who die at birth, or, to those who die after sometime; or to those who pass a very precarious existence. Children who are born not of young mothers, but of developed ones, very often die a premature death on account of criminal neglect at the time of child birth, or careless nursing after that; or, again, on account of ignorance of elementary hygienic principles young infants and children contract diseases of an epidemic character, like measles, small pox pneumonia etc. Sometimes, owing to the neglect in matters of diet, or due to mal-nutrition, they die on account of the enlargement of liver which is a common disease among Indian children. The high infant mortality has caused a great increase in our death rates. But this is not the only reason why they are so high. Even grown up men and women die at a premature age, on account of causes which are ultimately traceable to poverty or ignorance or both. Many females die while giving birth to children. Many die of wasting diseases like phthisis. Pardah system is also responsible to a large extent for the high mortality among females. Also, on account of frequent child births, and consequent nursing, without at the same time getting adequate nourishment, women become weak, and die a premature death. Men also die mostly on account of weak bodies due to mal-nutrition, poverty and ignorance.

The total death rate in consequence becomes abnormally high. Herculean efforts are needed to bring down both the

death and birth rates, and only a concerted and well planned move both on the part of the Government and the people can cope with this stupendous problem.

Average age of Indians. No wonder then that the general expectation of life in India is falling. It fell to 22 from 25 during the decade ending 1931. In Newzealand it is highest, being 65 years, in America it is 56 and 58, for men and women; in England and Wales, 49 for men, and 50 for women; while in Japan it is 47 and 48.

Standard of living. A person's standard of living is determined with reference to requirements which are considered absolutely essential by him in his daily life. Without these requirements the individual or the class is not satisfied. So the phrase, standard of living, is highly vague and must differ as between one class or individual and another.

Economists are of opinion that if a man is dissatisfied with a small number and amount of articles available for daily use, he will work hard to obtain a larger number and amount of such articles. If he continues to have splendid discontent, he will succeed in improving his material condition, effectively and soon. This is why wages or salaries or other payments, are ultimately, and in the long run, determined by the standard of living of persons getting them. If they raise their standard, they will either not accept, or will not be satisfied with, a small amount and number of articles necessary for a family's every day life. The standard of living is therefore regarded as a vital force for the improvement of one's position in life.

This is quite right, as far as it goes, but the question arises how can illiterate, and poverty stricken people be asked to raise their standard of living without really mocking them? They do not know the meaning of a standard, and have no idea of a living. They simply live and pass their time, as they cannot help doing that. Under such circumstances it is not easy to ask people to raise themselves up by their own efforts, unless they are first helped by others. It does not mean that there are no Indians who can help themselves, and improve their position primarily by their own efforts. But the number of such people is not very large. The majority consists of that class which will have to be assisted from all sides and in different ways. It is really a vicious circle. Poverty has caused a low standard of living; and a low standard of living has caused poverty. The vicious circle can be broken only by joint labours of different parties in the country, irrespective of their political leanings.

Effect of Social Customs. Some of our social customs are bad, but not all. These customs originated at a time when conditions were vastly different from what they are to-day. When they originated, they served a very useful purpose, but with the lapse of time some of them have become obsolete and now need giving up altogether. Others need some modifications, here and there, to suit changed conditions. But it is not easy for an

illiterate community, either to give up altogether, or to modify, such customs which have the sanction of countless centuries behind them. Moreover, a reprehensible tendency has grown among semi-educated young men who have received only a smattering of western education, to decry all old customs, whether good, bad or indifferent, without trying to understand their true import.

This attitude does not prove very helpful. Common people think that it is a serious attack on their faith and culture, and some of them, in a spirit of challenge, stick even more desperately to such customs and habits. Many customs, as observed to-day, are very harmful to economic interests of the community; but the problem of social reform is much more delicate and difficult than that of political or economic reform. No economic or political reform is possible without a thorough going social reform. A number of social customs in their present forms will have to be given up, or, at least, considerably modified, if it is seriously intended to do any economic good to the people; but this problem should be entrusted only to those who having a very great respect and admiration for India's old traditions and customs, feel all the same that some of them have outgrown their usefulness and are not, in these changed times, as suitable in their old forms as they were thousands of years before. An old social custom should be treated like an idol. If it has to be removed from a temple where it has been for a considerable time, it should be done with due reverence and consideration, and without the least tinge of disrespect or mockery.

CHAPTER IX.

CAPITAL.

Harmonies and conflicts between labour and capital. By the term harmony we mean that state or condition when different parts of a thing are in agreement with one another. By harmony between labour and capital we mean that condition of production of wealth in which both contribute their respective quota in co-operation and concert.

Of the different factors of production, labour and capital are, in modern times, of special significance. Capital, although ultimately a product of labour, has in modern times assumed very great importance. Labour alone cannot go very far without capital, as at every stage it needs its assistance. Without implements and tools, an agriculturist cannot raise any crop. A labourer, without the help of capital, will cut a very sorry figure indeed! Consequently, the dependence of labour upon capital has, in modern times, become virtually complete.

But what can capital alone do without labour? Let there be any number of machines and engines, and any amount of coal and oil, it is impossible for a single article to be produced, unless there are labourers to tend the machines and work the engines. A cultivator cannot raise a crop without the assistance of either the members of his family, or a number of hired labourers. At every stage he will need the assistance of labour, without which he cannot make any progress. So, the dependence of capital upon labour is as complete as that of labour upon capital. As a matter of fact, the tasks assigned to each are such that they cannot be performed efficiently by the other. One supplements the other, and that is what we understand by the harmony between labour and capital.

Up to a certain stage in the economic history of man, there was only harmony between labour and capital as described above, and there was, practically, no question of any conflict arising between the two. A person got a machine, and either began to work upon it himself, or asked a labourer also to assist him, in return for a certain consideration. He and the labourer continued to work harmoniously together. But after the Industrial Revolution, conditions changed abruptly. Iron and steel machines took the place of old wooden machines, and the work of production began to be carried on in factories, instead of in the homes of labourers. A separate class of capitalists emerged, which owned all capital, and employed labour.

When such machines began to be worked, and their out-put was sold in the market, it proved superior, in many respects, to the out-put of wooden machines, worked in the old way by old

class of labourers. The result was that after some time these old type of workshops had to be closed, and the labourers were rendered idle and began to go about here and there in search of work in the new type of factories that had come into existence. The dependence of labour upon capital became still more complete, but now there was an important and vital difference. The capital was now not owned by those who used it. It was owned by others. Labour was formerly dependent on capital; now it had become dependent on capitalists. This was the beginning of conflict between the two.

The treatment meted out to labourers by the new capitalist employers was not fair, and left much to be desired. As time passed on, this treatment became still more harsh and inhuman. Labourers, not finding any other way of escape, began to organise themselves into bodies called Trade Unions, and definitely arrayed themselves against these capitalist employers, in order to bring about an improvement in their condition of working and employment. They wanted concessions, or rights, which the capitalist employers were not very much inclined to give. Thus arose a conflict between labour and capital.

When different parts of an organism do not work in co-operation with one another, the organism suffers. The same happens in case of a conflict between labour and capital. Production of wealth, of which they are both important factors, begins to suffer. The loss has to be borne not only by capitalist employers, but also by labourers. If the work of production ceases, labourers will not get their wages, and the capitalist employers will be deprived of their interest and profits. Reasonable men, on both sides, have begun to realise the importance of working in harmony with each other, and of avoiding the conflict as far as possible. This is the position at present. There is an elaborate machinery to preserve better harmony between the two factors, and to avoid, if possible, or end, if necessary, a conflict between the two, if it ever arises. It is in the interests of both labour and capital that the amount of production is as large as possible, so that each may have a substantial share. So far there is harmony. But when the work of Production has come to an end, and the question of allotment of shares between labour and capital comes up for consideration, the conflict arises. Each one wants as big a share as possible. This is the most difficult practical problem of modern times.

Conditions affecting the growth of capital Capital is ultimately the result of saving, which is possible only when a number of conditions is satisfied. Only those whose incomes are larger than their expenses, are in a position to save, if they like. Supposing that what is saved is not hoarded, or later on wasted, but that it is carefully invested, we may say that there are three main conditions of saving.

- (a) Power to save (b) Will to save and (c) Opportunities to save,

(a) Power to save.

It is obvious that saving is possible only when a person's income exceeds his expenditure. If the income is really so small and insignificant that even the necessary expenses of the household are not met out of it, the question of saving cannot arise. By reducing his expenditure, a man can certainly make his income go a little farther, but there is a limit beyond which expenditure cannot be curtailed. If, by reducing expenditure, even those necessities of life cease to be satisfied without which health or even life itself cannot be maintained for long, there can be no sense in recommending it. Our country is so poor that there are very few people whose incomes exceed their expenditure. Many of our cultivators are still indebted in spite of the phenomenal rise in prices due to war conditions and so there is no question of any saving in their case. What holds good of our agriculturist is true of India as a whole. When such a large majority of our people has no power to save, the amount of capital must be very small. Of late this percentage has begun to increase and consequently the amount of capital now available has also gone up.

(b) Will to save.

There are cases where the power to save exists, but the will to save does not. Such people are called spend-thrifts. Their incomes are larger than their necessary expenditure, but they are always prone to incur expenditure on items which are not really very necessary, and are sometimes actually useless, even harmful. This habit of spending unnecessarily up to one's means or even beyond, is highly reprehensible, especially in a poor country like India. Those who have contracted bad habits and have developed loose morals, always spend thoughtlessly, whatever income they have. Usually, such habits are found developed in those upstarts who have inherited large amounts of wealth and have not received a proper education or training from their elders.

But there are other cases where more is spent than is earned, or at least the whole amount of income is spent without leaving any saving, not because of any bad habit or loose morals, but mainly because of social considerations of prestige. This case is more serious than the first one, and is of very frequent occurrence both in towns and in villages. Among many causes of the indebtedness of our agriculturists, one is expenditure which is incurred not because of its absolute necessity, but only out of considerations for social prestige. A cultivator, who has not enough even for properly clothing himself and his family, must spend 10, 20 or sometimes even 50 Rupees on the death of his very old mother or father. There are many such social occasions when a person does not mind even borrowing money. These social practices are out of a mistaken notion, given the force and importance of religious commandments; and it becomes difficult to induce a man to disregard them and save his money from useless expenditure.

(c) Opportunities to save.

The last condition of saving, or of the growth of capital, is that there should be adequate opportunities to save, when a man has both the power and the will to do it. In the absence of such opportunities, one feels inclined to spend his saving even though it may not be very necessary. It really requires a considerable amount of sacrifice in most cases, to forego a present pleasure for a future gain. Future is always uncertain. One who saves in the expectation of future gain, may or may not be himself present at this future date. Even if he is wise enough not to mind very much his own presence or absence at this future date, there is a considerable amount of uncertainty regarding the security of wealth that is saved and kept aside for future use. It is here that the importance and necessity of sound institutions for saving is realised.

Banks encourage saving, in as much as they hold out a promise to repay the money deposited with them on certain conditions at any future date. But even banks have proved in the past, and may continue to prove in the future, not absolutely secure institutions. As a matter of fact, there can be nothing absolutely secure in human affairs any where in the world. For all practical purposes however, modern banks are sound institutions which afford excellent opportunities to save and to earn an income, however small upon one's saving.

— There are other opportunities also which modern economic organisation affords to people for profitable investment of their savings. Every Government offers interest bearing securities in which people can invest their saving. There can be nothing more secure than these Government securities and the amount of interest that they yield is also not insignificant. Yet again, there are many provincial and local bodies and corporations that require money for general purposes and offer very good terms to the investors. Many industrial companies are also floated after being duly registered, and they need a large amount of capital. It requires a great deal of care and discrimination to select industrial companies which are quite safe and sound. But if investment is carefully made, it benefits the investor, and also the country which grows richer by the extension of productive activities.

For the growth of capital, opportunities for investment must be as many and as varied as possible. It is the duty of the Government of a country to see that such opportunities are multiplied, and are made quite secure. For this purpose Governments in different countries of the world have passed special laws to control the activities of banks and such other companies which carry on their operations with borrowed capital. It is also the duty of the State to assist in different ways, productive enterprises started in the country, so that confidence may be created in the public mind in regard to such investments.

2) — In India such opportunities are very few. The country possesses very little power to save, also on account of certain social customs and religious observances some of those who have

the power to save have to spend their saving, sometimes even against their will on social or semi-religious functions. Still there are people, especially those belonging to the trading and commercial classes, who are in a position to invest their money, if there are good opportunities to do so. Commercial banks allow a very small rate of interest on fixed deposits, and so their terms are not attractive enough to induce people to save. Return on Government securities, though greater than on fixed deposits in banks, is not high enough to develop healthy investing habit. The greatest encouragement to saving is really afforded by industrial activities of joint stock companies started for producing various articles. They hold out the prospect of a fairly high rate of return, and in 70 to 80% cases, such expectations are usually fulfilled. Sometimes there may be a loss too, but in the majority of cases there is a gain : is not only to the individual investor, but also to the country as a whole. A new productive enterprise mobilises idle wealth, and gives employment to a number of people in the country.

We regret to say, however, that the Government of India have done practically nothing to encourage this sort of investment in the country. In Germany, the Government purchases a number of shares of good companies and appoints a director, sometimes even 2 or 3 as its representatives. This creates confidence in the public mind, and the required amount of capital is easily subscribed. Many other measures are adopted to induce those who have both the power and the will to save, to invest their money in profitable undertakings. The policy of the Government of India has been mainly that of a disinterested spectator. It seems to prefer to leave things to the people themselves, at least in this sphere. This appears to be a reminiscence of the old Policy of non-interference, now given up even in England. This is not desirable. It is the duty of the Government to come out with a definite plan for the industrialisation of different Provinces to the extent that it is possible and desirable. For this it will have to give its own guarantee for the safety of capital invested by the public in companies floated for various industrial purposes. This will induce even shy capitalists to invest their savings in industrial undertakings, guaranteed by the Government and gradually withdraw them from other less profitable and less secure forms of investments.

From this point of view, the action of the Government of India, in raising the excise duty on sugar, appears to be almost inexcusable. To actually penalise a growing industry, instead of encouraging it, is something which one cannot easily understand. Such actions on the part of Government discourage people from investing their money in Indian industrial enterprises however profitable they may appear to be, and may actually be, for sometime. It creates a suspicion in the mind of the people that the Government does not really want industrial regeneration of the country, in spite of its profession, and does not like that the Indian investing public should patronise Indian industries. The Government wants, it is suspected, that people should either

continue to lend money on the security of landed property, or continue to buy Government securities. The sooner this suspicion is removed the better for the country and everybody concerned. The war time policy of the Government has still further strengthened this suspicion and furnished a ground to its critics to widen the existing gulf between the people and their rulers.

Fixed and circulating capital. Capital consists of all those material goods that help in production. These material aids to production are mainly divided into two classes (a) Goods that are of a durable nature and continue to perform their function of assisting the production of wealth over and over again, are classed as *fixed capital*. Plants and machinery, engines, railroads, implements and tools are all fixed capital. They can continue to perform their function for a considerable period and do not wear out soon (b) Goods which aid in production but are used up in the very first instances, are classed as *circulating capital*. Seed, manure, coal, raw material used in the production of a finished article are all circulating capital. They wear out and disappear in the first act of production, and have to be renewed again and again.

In different productive enterprises, the proportion between fixed and circulating capital is different. In some industries, a large amount of fixed capital is necessary. In others, a large amount of circulating capital is required. Agriculture, as it is carried on in India at present, needs more circulating capital than fixed capital. We require seed, manure and water, and they are all circulating capital. The implements and tools that are necessary, do not proportionately cost as much as the amount that is necessary to be spent over circulating capital. In modern industries, however, the amount of fixed capital required for carrying on production is very large, as compared to that needed for circulating capital. In textile industries and even more so in iron and steel works, a large amount of capital has to be sunk in the purchase of plant and machinery and big buildings. The amount of circulating capital is also large enough but it is very little proportionately.

Modern tendency in this respect is towards spending more in fixed capital than in circulating capital. The amount of wages paid to labourers is capital but it is of a circulating nature. Modern tendency is to install machines which displace labour. More costly machines are substituted for less costly ones; and more durable and elaborate buildings, for those that are less durable. This process is known in industry as *rationalisation*, and as it results in the displacement of labour, it is not very much liked by labourers and their leaders.

ADVANTAGES OF MACHINERY.

It relieves strain on human muscles. It is easier to carry a number of packages after loading them in a *thela* than to carry them over one's head. The *thela*, acting as a machinery, relieves

in a few minutes and gave it in perfect working order to the customer. All parts were interchangeable, so that one part was exactly similar to the other of the same class. This degree of uniformity is not attainable in hand-made goods, however highly skilled the artisan may be; needless to say, the output of a machine is far greater than that of a manual labourer.

It cheapens production. With a large output per unit of time, the overhead charges per article, become almost negligible. This makes it possible for a machine-made article to be sold at a very cheap rate.

DISADVANTAGES OF MACHINERY

It displaces labour and so increases unemployment. So we find that the advantages of machinery are numerous and almost overwhelming and when we use the word in a wide sense, and in its application to the world in general, its advantages far outweigh its disadvantages. But if we use the term in a restricted sense, confining it only to those machines which are driven by mechanical power, and then keep in view the conditions as they prevail in India at present it cannot be said definitely whether the introduction of machinery has been and is likely to be of any great advantage to this country. Machinery economises labour no doubt, but for the same reason it also displaces it. It throws out of employment a number of labourers previously engaged in earning their livelihood.

It is said by some that displaced labour is absorbed by growing industries. In the first place not all displaced labour can be so absorbed. If it were possible, there would be no advantage, practically of employing machinery. In the second place, the particular labour which is displaced may not find any employment in machine-ridden industry, though some others may be so engaged. If Indian labour is displaced by machines working in foreign countries, the question of its employment does not arise. Even if it is displaced by machines working within the country, it is quite possible that machines working in one province might have displaced labour working in another. So the displaced labour cannot find immediate employment in growing factories. Moreover, the use of machines renders specialised ability and skill of manual labourers useless. Their services, therefore, are not needed in mills and factories. Highly skilled artisans are not wanted in a mill. Only such labourers who possess ordinary intelligence of a general nature, are really in demand. So the great hardship and misery suffered by displaced labour is not adequately compensated for. Some labourers are no doubt employed in factories, and this gives employment to people of a particular class, but it does not necessarily help the displaced labour in any way.

It is also said that some labour is absorbed by the new industry tarted for the manufacture of machines themselves. This might

machines are manufactured; but it cannot be applicable to India where there is no machine making industry.

India is a country which possesses a vast amount of population, which increases enormously after every decade. So, any device which is likely to render a large number of persons idle, should not be looked upon with very great favour. The most trying time for Indian labour was towards the end of the 18th and upto the middle of the 19th century. Many Indian cottage industries were practically destroyed. There are some which are still struggling, but they have now to compete with machine made goods produced both in India and abroad. It is therefore the duty of every well wisher of the country to encourage the introduction of only such machines which do not displace labour on a large scale. If this cannot be avoided, methods should be devised whereby the displaced labour may find employment, as soon as possible, either in the same or in an allied industry. Some cottage industries should be selected for different areas and attempts should be made to organise these on a commercial scale with state aid.

It accentuates inequality of income. The introduction of machinery, and so the concentration of capital in a few hands has, no doubt, contributed to the increase of wealth, but it should be remembered that mere increase of wealth if it is not justly and properly distributed, not only does not help the material prosperity of a country, but really retards it. Machinery has a tendency to make rich people richer, and also sometimes to make poor people poorer. This is its great social defect. By a careful selection of industries whereby some may be reserved for development in cottages, some in factories under private control and some under state management and ownership this disadvantage can be reduced to a considerable extent.

CAPITAL IN INDIA.

Agricultural Capital. We may divide agricultural capital into two classes, (a) live stock (b) dead stock

(a) Under live stock we will include only cattle, and disregard other animals like sheep, goats, swine and poultry, which form a very important part of agricultural live stock in other parts of the world. India possesses very large number of cattle, perhaps the largest in the world, estimated at about a hundred and twenty millions. They comprise bullocks, cows and buffaloes. Indian agriculture depends almost exclusively upon bullock power. Hardly any mechanical power of any kind is used in India for agricultural purposes. The prosperity of agriculture, therefore, must depend in a large measure upon the number and quality of these bullocks. Needless to say, their quality is very poor and the number is quite inadequate as compared to the magnitude of the task. When the cultivator himself has not enough to eat, and when he himself is passing a precarious existence, it is impossible

are, therefore like himself, overworked and underfed. He has very often to sell his whole crop in order to make certain pressing payments. Along with the principal yield of the crop, he is also compelled to sell its by-products which usually serve as fodder for his cattle. In short, his cattle are no better in these respects than he himself, and so suffer along with him.

As with bullocks, so with cows and buffaloes. The early Aryans realising the great economic importance of the cow to a country like India enjoined upon every Indian the duty of protecting her and her progeny. For long ages the cow continued to be held in reverence and regard, but in modern times the continuance of the old system has become rather difficult. There are no grazing grounds for cattle and breeding is indiscriminate. The result is that cattle have become weak and their quality or breed has deteriorated. Indian cows are no better than skeletons and do not give enough milk. The calves which later on develop into bullocks, being of inferior breed and weak constitution do not give satisfaction. Along with other causes of this deterioration the scarcity of fodder and almost the total absence of grazing ground are mainly responsible for this deplorable state of affairs.

(b) Under dead stock we include farm buildings, wells, granaries, enclosures, implements tools etc. In India there is very little capital of this kind except wells and implements and tools mostly of the primitive and simple type. The Government have constructed irrigation canals at a capital expenditure of several crores of rupees. They are so unique and important that we will discuss them under a separate head. Unlike the English landlords the Indian *samindars*, have not contributed anything in this direction. They have never cared to spend anything from their pockets towards the permanent improvement of their land. They confine their activities only to realise rent from their tenants in as large amounts as possible, and pay the fixed, or settled amount of revenue to the Government every year. So there are no farm buildings or granaries or enclosures of any durable nature any where in India. Numerous wells, however, have been sunk in areas where water is available at a fair depth in the sub-soil. They are both *pucca* and *lachha*. A *lachha* well is a very crude arrangement of getting sub-soil water. The cultivator himself the male members of his family, and some times a few labourers,—all work together and dig a circular hole big enough to let a leather bag (*charas*) pass in and out freely without touching its sides. The sides are protected from falling by a circular net work made of wicker and fixed all round the hole as closely as possible. The hole is dug down to a depth where water becomes freely available. This is a *lachha* well which does not last usually for more than a few seasons, unless repaired now and then and the wicker work renewed and replaced practically every year.

supply consequently is more regular, uniform and plentiful. It costs between 2 to 5 hundred rupees, sometimes even more the cost depending upon the distance of the subsoil water from the surface, and the nature and quality of the structure. Before the construction of canals, wells were the exclusive source of artificial irrigation in the plains of Northern India, but after the construction of canals, their importance diminished, in the areas served by them. Even now about one third of the cultivated plain of Northern India is irrigated by means of such wells.

Apart from permanent improvements, agricultural machinery forms an important part of agricultural capital. But it is of a very primitive character in India. Improved and modern type of agricultural machinery has not come into use. It is found only on Government demonstration farms or on the private farms of *zamindars* who have started agriculture on modern lines upon their own plots of land. Such men are still very few. Primitive type of implements are mostly in use throughout the country and they are not costly. Their total value sometimes does not rise above Rs 25 or Rs 30. So the total agricultural wealth of the country is very small as compared to that in countries like the United States of America and England.

Roads Roads should be classed under national capital as distinguished from individual capital. The construction of roads was the first attempt made by man to make his own passage and that of his goods easy from one place to another. Before the era of roads goods used to be carried on pack animals, and man used to go about on foot from place to place. A road was necessary for any wheeled conveyance. The bullock cart could not ply without a set path way *kachha* or *Pucca Kachha* roads were numerous even in the earliest times, but when an ordered system of Government was established, *Pucca* roads also began to be constructed.

Importance of Roads. The importance of roads in a country of long distances like India is very great. Although the external trade of India is quite considerable—about 600 crores of rupees per annum—her internal trade is much more important than the external one. In this respect India resembles the United States of America more than any other country. The latter, still mainly agricultural, is a country of even greater distances than India, and her internal trade is much more important than her external trade. But if we compare the mileage of roads in the United States of America with that in India, we find that our country is practically nowhere. The total length of roads in India is —

Metalled roads 84 000 miles, unmetalled roads 232 000 miles. In the United States of America the figures are surfaced roads 600,000 miles; graded roads 700,000 miles, non-metalled roads 2,000,000 miles! The density of population in British India is about 250 to the sq. mile, while it is only 32 in the United States of America. But the mileage in India for every lakh of pop.

We may divide roads into four classes (a) asphalted, (b) *pucca*, or *lanakar* (c) *lachha* and (d) footpaths. The length of *pucca*, and *lachha*, or metalled and unmetalled road, has been given above, but the figures for asphalted roads and foot paths are not definitely known. Foot paths may not be regarded of very great importance by those who live in cities, but their importance to those who live in villages and have to move from one village to another, is very great. Very often there is not even a foot path connecting one village with another. The absence of foot paths is not due to the insignificance of traffic but because it is difficult to establish a permanent route between two such places without trespassing on other man's lands which cannot be easily allowed.

The policy of the Government in the matter of construction of roads has not been very systematic. Owing to the very great interest, military financial and commercial, of the Government in the railways roads received only a *step-motherly treatment*, and were consequently neglected. It was only after the development of motor traffic that their importance began to be recognized. From this time onwards, roads began to improve and motor traffic, both of a private and commercial character, began to develop very rapidly. The number of motor cars and motor buses in every city has increased very rapidly, and for short distances motor journey has become much more popular than railway journey. The total number of all classes of motor vehicles running in British India up to the end of March 1939 was 159 245 including 39 922 heavy motor vehicles—lorries, buses etc.

As a matter of fact one of the most outstanding recent economic developments, not only in India, but in the whole world has been in the matter of the growth of the automobile. In the beginning of the 20th century a motor car was a curiosity, not only in our country, but also in the greater part of Europe. But at the end of 1939 there were no less than 45 million automobiles, of which about 35 millions were in the United States¹. In the beginning of the century, America produced only 3 000 cars every year, in 1939 the production was approximately 5 millions¹. It has already become the leading industry of America measured by the value of its products.

So on account of the development of motor traffic, the condition of roads began to improve in India also. A Committee for the improvement of Indian roads was appointed by the Government of India under the chairmanship of Mr Jayakar in the year 1928. In accordance with the main recommendation of this Committee, the Indian Finance Act of March 1929 introduced an increase in the import and excise duties on motor spirit from 4 to 6 annas per gallon. This additional tax of 2 annas per gallon was to be utilized for the maintenance and development of roads. While all that is being done to improve the condition of *pucca*

does not so urgently require first class roads which may facilitate long or short distance motor traffic, as she needs in the first place, such *pucca* roads which may connect a big village to the *Tehsil* or the district head quarters, and in the second place such *kuchcha* roads which may make passage to and from one village to another village *Tehsil*, or district possible all the year round. During the rains, it becomes impossible to go in and out of a village. The approaches leading to it get covered with water and it becomes impossible to go in or come out of it, except by wading knee-deep through water. The lot of the inhabitants of such villages cannot be improved even if all *pucca* roads in India are asphalted and made more comfortable for motor tourists. What really they want is simply a passage in and out of their village. If this is done it will do the greatest good to the greatest number.

Railways. Many remarkable inventions have been made in the world during the last 150 years and more, some of them of a very far reaching character, but nothing, perhaps, has been more remarkable than the invention of the steam engine. Steam as a power, is really very cheap. It can be harnessed to a variety of uses. So when the steam engine began to be utilised for purposes of locomotion, the railway era commenced.

The railway were first started in England then in Europe and America, and lastly in India, after Lord Dalhousie had sent several minutes to the Directors of the East India Company. They gave their consent, but a great difficulty arose in getting the necessary amount of capital for the construction of railways. The cost of engines is certainly considerable, and that of the carriages is also not inconsiderable but the largest amount of money has to be spent over the construction of the rail road.

India was, till the middle of the 19th century, almost an unexplored region, especially as viewed by Englishmen of that day. It was known as a country of Thugs, the Pindaries, the Bengal tiger, the crocodile, the cobra, and a not very friendly people, who could at any time rise up in rebellion against the Englishman who had not secured his footing very firmly. Under these conditions, it was not easy for the Government of India, or for the Directors of the East India Company, to induce the English capitalist to invest his money for the construction of railways in this country. Conditions in India were so unsettled that there was no question of raising money for this purpose in this country. Accordingly, the English capitalist had to be completely satisfied, and the conditions that he imposed before finally agreeing to invest his money in the enterprise had to be accepted. The most important of his conditions was that of a guarantee of a return of 5 per cent on his capital. It was a high rate, higher than what could be earned in England at that time, but the Government of India was keen on opening certain railway lines in the country, and that too as soon as possible. Perhaps military strategy demanded it or there might be something else.

companies were registered in England, about £60 million were subscribed for the purpose and construction was taken in hand.

When a high rate of interest is guaranteed by such high authorities as the Government of India and their superiors in England, it is clearly in the interest of the capitalist to invest as much money in the undertaking as possible. He would not mind even borrowing from some one at a lower rate of interest and then invest it, at a higher rate. That was what actually happened in England. Attracted by highly advantageous terms the English capitalist grew anxious to invest as much as possible. Those who were in charge of railway construction in India were not particularly anxious to practise economy. They paid large sums of money to English engineers, because, in the first place, Indian engineers were not available, and in the second place, no English man liked to come to India in the middle of the 19th century and expose himself to the fierce rays of the sun and the unknown and undefined dangers of the country, without charging a heavy sum as an insurance against all these risks. The standard of construction that was adopted was also far in excess of the requirements of the country. Raised platforms were constructed even for sideway stations of no great importance, and the staff buildings were also of a very durable and elaborate type.

The cumulative effects of all these factors was that the amount of capital spent over the construction of railways exceeded all expectations. When the railways began working, they proved, as was expenses a hopeless failure. Not even the working expenses could be earned, but the guaranteed interest had to be paid somehow, and the deficit in the working had to be made good out of general revenues. So the people had to be taxed in order to efface this deficit, and to pay guaranteed interest to the British investor.

The Government of India, although realising the necessity of pushing railway construction still further, did not like to borrow fresh sums of money according to the old guaranteed system. They decided to construct additional lines out of the revenues of the state. This was essentially an uncertain and indefinite programme and it broke down very soon. Borrowings from England commenced again but this time on easier terms. Without entering into further minute details, it will suffice to say, that up to the end of 19th century almost all the important railway lines, at present in use in India had been completed. It may also be mentioned that the railways as a whole, did not give any profit but continued to cause loss to the Government of India till 1901, which was the first year when profits on railways commenced.

Even at the time of the first guarantee to the English companies, the Government of India had, with characteristic foresight, got one clause inserted, which was to the effect that after the lapse of 25 years the Government would be entitled to purchase

acquire different lines, so that at present almost all important railway lines are owned by the state and most of them are also managed by it. The total mileage of State Railways comprising the three gauges, broad metre and narrow was about 41,000 at the end of 1941 after which there was no fresh construction.

State versus Company management. Differences of opinion arose regarding the merits and demerits of state and company management. There was no serious difference of opinion as regards the ownership of the railways. It was regarded as a good policy to acquire the various lines; but, there were some who did not agree with the policy of taking over the management from the companies. They said that the state management would never be as efficient as that of the company, that it was not a good policy for the state to undertake commercial enterprises; that political considerations will begin to have an upper hand in the administration of Railways which must be carried on commercial lines; and that instead of getting more profits the state would lose a considerable part of those that it was earning through the efficient management of companies.

To this others replied that there was no reason why the state management should be less efficient than that of the companies, provided that sufficient care was taken by those who were placed in charge of this important department. But even if the management might not be as efficient as under company management, other advantages would far outweigh this small disadvantage. They also said that there was no sense in asking the Government not to undertake this commercial enterprise when it had already undertaken several others, and with no inconsiderable success. Forests, canals and land, were the property of the state, administered directly by it; then why not railway? As for political considerations it was pointed out that the railways had assumed so much importance that it was impossible to keep their administration aloof from political considerations.

Present position. The general trend of public opinion at present is both for state ownership and state management. The Eastern Bengal Railway, the old Oudh and Rohilkhand Railway now incorporated with the East Indian Railway, and the North Western Railway, were managed by the state since a long time. The management of the East Indian Railway, of the G. I. P. Railway, and of the B.B.C.I. Railway, has been taken over by the Government during the last few years.

With the increase in railway traffic, a Railway Board was constituted by the Government of India in 1905, consisting of a chairman, 2 members and a secretary. It was reconstituted in 1925 and at present consists of a Chief Commissioner, a Financial Commissioner and 2 members. The Chief Commissioner is the Secretary to the Government of India in the railway department, and is the president of the Board. Each member of the board is in charge of a separate subject. It is also assisted by 5 Directors who do a great amount of work of a routine nature. The

members are thus left free to devote themselves to questions of high policy.

There are also local advisory committees functioning on all first class railways. Their main work consists in bringing to the notice of their respective railway administration, matters affecting the general public in their capacity as users of the railway. They constitute a valuable link between railway and the general public. The following are some of the more important matters in which these committees are interested—improvements in coaching stock provision of Indian dining cars; reduction of rates and fares; arrangements for dealing with traffic at festivals; supply of drinking water to passengers; provision of bathing cabins at stations; overcrowding in lower class carriages; provision of waiting rooms for ladies and so on.

Up to 1924 the income from railways was included in the income from all other sources and the expenditure was also determined as a part of a general programme, that is to say, the railway income and expenditure formed a part of the budget of the Government of India. But in 1920-21 Acworth Committee was appointed to go into the question of railway administration. It recommended the separation of railway budget from the general budget, and also made certain other recommendations. In pursuance of these recommendations the Legislative Assembly recommended to the Governor-General in Council that the railway budget be separated from the general budget, and that the railways should make a definite annual contribution to the general revenues which should be the first charge on their net receipts. This contribution was fixed at 1% of the total capital outlay on commercial lines plus 1/5th of the surplus profits in the year. This recommendation was accepted by the Governor-General.

For a few years after this separation the railways contributed about 19 crores of rupees to the general revenues. But from 1929 onwards, conditions became highly unfavourable. The general trade depression and the rail road competition were mainly responsible for the deplorable state of railway finances. Upto 1939 the total deficit in the railway budget amounted to about Rs 37 crores. The financial position of Railways in India immediately before and during the war cannot be regarded as a correct index of their true position. There have been surpluses during these years, but they can be attributed to an increase of one anna in the Rupee in fares exceeding a rupee and an increase of 4 annas in the rupee on most commodities. Also on account of war conditions necessary amounts could not be spent on replacements, renewals and repairs. The year 1941-2 yielded a surplus of about 26 crores of Rupees while the year 1942-43 was expected to yield a surplus of 28 crores of Rupees out of which Rs. 20 crores was to be transferred to General Revenues while about Rs 8 crores to the depreciation fund.

Effects of Railways. Railways have effected the country in several ways. Below are given the more important effects of Railways.

(1) The character of famines has changed—India being a country of long distances, it is difficult to transport goods from one part to another. Before the construction of Railways it was very difficult to transport food stuffs, from one Province to another by road during a famine, even when there was plenty of grain in one and a great scarcity in the other. The result was that millions of people died of starvation. Railways have made it possible to send food stuffs easily from one place to another. So India no longer suffers from food famines in the sense in which it suffered about a hundred years before. Now we have only money famine, but no food famine.

(2) External and Internal trade has been encouraged. With the development in the means of rapid transportation, the movement of commodities has become very easy. Articles manufactured in foreign countries are now imported freely into India and distributed by Railways to various parts. In the same way, products of the country which are demanded by foreigners, are collected from different places by them for the purpose of export. India's foreign trade has accordingly increased a great deal. Internal trade has also increased enormously. This has resulted in a great equalisation of prices in the matter of commodities which are of commercial importance.

(3) Railways have provided employment and training to many people. About 900 crores of rupees are invested in Railways and so it is the biggest industry of India, giving employment to a large number of people of different classes and grades. From high Indian officials drawing salaries of several thousand rupees per month, to the humble coolie who earns a few annas every day, railways give employment to hundreds of thousands of people in the country. Also, there are important railway workshops in different head quarters of principal railways, in which engines and other parts are repaired. At Ajmere, in the B. B. C. I. Railway workshop, engines are also constructed, together with all their parts and accessories. Along with the loco workshop, there is also the carriage workshop where carriages are constructed. Thus railways also serve the purpose of giving high technical education to Indian labourers.

(4) India being a caste ridden country, railways have succeeded, to some extent at least in diminishing the rigour of caste caused by inter-mingling. People of high and low castes travel together in Railway compartments and while there eat and drink in the company of one another.

(5) Railways are our most valuable asset. If properly managed and controlled, they can yield a large income. It is the most important commercial undertaking of the State and requires an ever vigilant watch.

(6) In spite of the great poverty of the people, numerous pilgrims go to sacred places and shrines at stated times, and a large number go out for purposes of sight-seeing. This is making Indians travel-minded and is also broadening their outlook.

(7) Though the trading class was present in India, as elsewhere, ever since exchange developed, that class of traders and commercial men which is engaged predominantly in the import and export of articles from and to foreign countries, owes its rise only to railways, assisted by steamships. They widened the markets for Indian agricultural produce, and though the agriculturist may or may not have benefitted by the rise in the price of agricultural produce that followed the advent of railways, the commercial class certainly reaped that benefit and became very rich.

(8) Most of the Indian coal is consumed by railways. A large number of sleepers is demanded by railways on account of which timber growing has been encouraged. Iron and steel industry has also been benefitted by the railway demand for rails, though engines have not yet begun to be constructed in India except at Ajmere.

There was one factor which used to cause considerable misgiving to all lovers of India. The railways were constructed out of borrowed capital from England, so an enormous sum had to be sent out of the country every year in payment of interest. This state of things has suddenly changed for the better during the few years of the present war. A large part of our sterling debt which was incurred mainly for Railway construction has been wiped out now and we are on the way to become a creditor country if we receive a fair deal from England after the war.

It should not be forgotten however that Railways took a leading part in the destruction of cottage industries and in popularising goods of foreign make. Large tracts of land had also to be given free to the companies and they cannot be used now for purposes of cultivation. They have also disturbed the natural alignment of the plains, and have obstructed the free flow of water, thus causing floods and water logging. The fields on either side of the railway do not yield a good crop as the smoke and coal particles prove injurious to them. There are many accidents due to railways and so a great loss of life.

But with all this, the advantages far outweigh the disadvantages, and railways are a great economic and social asset for the country.

Rail-road competition. This competition is not confined to India alone. On the other hand, it is operating all over the world, and with much greater force in some countries than even in India. India is a country of distances; so is America. In these two countries the competition of road (motor cars, motor buses and motor lorries) with railways is confined only to short distances say within a radius of 50 to 60 miles. For long distance

traffic, roads cannot compete with railways on advantageous terms. But small countries like England, France, Germany and Italy where the majority of traffic is only within a radius of 50 to 60 miles,—especially in England—are finding the problem of rail-road competition very difficult of solution. In India the roads run generally parallel to the railways. This is no fault of the roads, because they were constructed first and the railways came next, selecting the same route. No body imagined at that time that roads would, at any time in the future, prove a serious rival to the railways. But this question has now assumed a very great importance.

As about 900 crores of rupees have been sunk in railways, they are India's most valuable asset and a very promising source of revenue to the country. We cannot allow this important national asset to be jeopardised by any untoward cause. The loss to railways is a loss to the nation. On the other hand, the development of motor traffic on roads has provided a much needed source of investment to the petty capitalist, and a still more needed avenue of employment to a large number of labourers, more or less skilled, who work on these buses as drivers and cleaners. What they gain and earn also remains within the country, and the money thus earned serves to support a large number of families throughout the length and breadth of the country.

To stop this motor traffic will be almost a crime against these petty capitalists, many of whom have commenced their business with borrowed money, and against those tens of thousands of labourers who are employed as drivers and cleaners. But it will be a still greater folly to let the railways suffer unchecked from this competition which is to some extent unfair also. The railways have to spend large sums of money in constructing and maintaining their routes. The motor bus, on the other hand has not to spend anything for the construction of roads over which it plies, and also pays very little (as a tax upon petrol) for its maintenance. What is needed is to devise certain methods whereby this competition may become less severe. Also it should not be allowed to remain unfair. It is also possible that railways and roads may in future work in co-operation with each other, but it can be so only when all motor buses ~~plying on roads come~~ ^{run} under respective Provincial organisations, and then form a central organisation which may settle terms with the railways. For this purpose the Railroad Conference was held in April 1933. Eight resolutions were passed in this Conference. They are given elsewhere in the form of an appendix.

The function of roads in future should really be to act as feeders to railways and to develop traffic in those regions which have not been touched as yet by them. The rural areas offer a good field for the enterprise of motor buses and advantage should be taken of it. The Governments of different Provinces should, through their District Boards, encourage the policy of assigning certain

rural areas to various motor organisations for a number of years with monopoly rights. In this way a great amount of good can be done to the rural areas, and the condition of *kuchcha* roads can also be improved without any extra expenditure on the part of the local or Provincial authorities. This policy should be tried at least for seven years and if found successful may be extended and permanently adopted. The outbreak of the war has, however, produced quite an extraordinary situation. The Railways are now no longer anxious to attract traffic but are engaged in the propaganda of a 'travel less' campaign. Most of the motor buses have been taken over by the Government and petrol having become very scarce, journey both by rail and road has become very difficult and trying. This is, however, only a temporary phase. That the two are potential rivals cannot be denied and attempts should continue to be made along old lines.

Water Transport. The system of water transport in India may be divided into two convenient broad divisions (a) Inland waterways and (b) Marine Transport

(a) In the matter of natural waterways, India is less favoured in comparison to other countries of the world. Only the rivers of Northern India are navigable. It is stated that there are about 26 000 miles of navigable waterways in connection with the great river systems of Northern India. The Indus, the Brahmaputra and the Ganges, are navigable by steamers all the year round, or for the greater part of the year, for hundreds of miles above their mouths, or above the heads of navigable canals traversing their *deltas*. But the development of railway traffic has led to a considerable decline in the steam navigation on the Indus and the Upper Ganges, though sufficient traffic in stones and log of wood is still carried through the Ganges Canal. The Brahmaputra is navigable by steamers as high as Dibrugarh, and there is steam navigation on its tributary, the Surma, as far inland as Sylhet and Cachar. The Hooghly is navigable all the year round upto Nadia, and further up from July to October.

The position of the rivers of the Peninsula is quite different. They flow in torrents and thus navigation is impracticable. The rocky beds and swift current of some of the rivers, like the Nerbuda and Tapti, are insuperable obstacles to navigation. The Mahanadi, the Godawari and the Krishna are indeed navigable in their upper reaches, but the traffic on them is not very considerable.

The construction of navigable canals either for purposes of irrigation or for transport purposes was indeed attractive for a little time when Railways did not pay their way, but the commencement of profits at the beginning of the present century turned the scales in favour of Railways. There are only a few navigable canals to day, such as the Ganges Canal from Hardwar to Cawnpore, and the Buckingham Canal parallel to the East Coast in Madras. Also the numerous irrigation canals are unsuitable as waterways, because navigation cannot be carried

on during the season of short supply of water without detriment to irrigation. Different set of conditions and circumstances must exist for both the purposes. Navigation canals, if they are to be successful, should pass through the industrial and commercial centres which may supply them with the required traffic ; while canals for the purpose of irrigation, are generally circuitous in their course and pass through thinly populated rural regions to cater to the needs of cultivation

In spite of the physical limitations imposed upon inland navigation in India, there still appears to be some room for improvement in the existing waterways. The Industrial Commission recommended that the Government of India should take up the question and see to it that the Railway and Waterway administrations work together harmoniously for those parts of the country which are served by both, and that the proposal of forming a Waterway Trust should receive careful consideration. Inland waterways, properly developed, would relieve the existing congestion in the Railway system and serve the needs of small scale transport in the country. It may also be possible to adapt at least some of the irrigation canals to the needs of navigation.

(b) Marine transport is of two forms, coastal and trans-oceanic. In the matter of external transport, India is greatly handicapped owing to the lack of good harbours, and her un-indented coast, still she occupies a maritime position of great importance. As Mr. Haji remarks, "A country set like a pedant among the other continents of the Old World, with a coast line of over 4000 miles and with a productiveness of numerous articles of great use, unsurpassed elsewhere, is by nature meant to be a sea-faring country. Her ports are adequate in size and numbers to meet the various requirements of her products".

Formerly, in the days of Akbar as Moreland points out, the great bulk of the commerce in the Indian seas was carried in ships built in India ; and India had also great passenger ships, much larger than any in contemporary Europe, with the exception of the ships built by the Portuguese. But, as the ships were built of timber, so, with the introduction of iron built ships India lost her position. From this time onwards the ship-building industry recorded its downfall, the chief reasons of which were the improvement in naval architecture, introduction of mechanised sea transport, the jealousy of the English shipping interests, and the operation of the English Navigation Acts, which were applied to India, as she came more and more under British control.

The share of Indians in the coasting trade amounts to only 25 per cent and in the oceanic trade to about 4 per cent. This is really a loss of a highly remunerative branch of business to the country. The total shipping earnings have been estimated at Rs. 57 crores of which 50 crores are carried away by foreigners. The monopoly of the coastal trade, in the hands of an association of a few large British Navigation Companies, has created a very

uncomfortable position for Indian shippers as well as ship-owners. The substantial profit of over 20 percent on the paid up capital earned by these Companies shows that fairly high freight rates are being charged to the shippers which ultimately have to be borne by the Indian consumers. Moreover, as the Fiscal Commission point out, the great disparities of rates between the charges on goods shipped from one Indian port to another and those on goods conveyed between India and foreign countries, handicap Indian goods in transmission in comparison with goods from and to foreign countries, and neutralise the natural protection which an industry might expect to receive in its own country by reason of the distance of foreign manufacturing centres. There were also other grievances of the Indian ship-owners. They were that the companies allowed deferred rebate system and waged rate wars. Deferred rebate system means that the shipping companies issue a notice or circular to shippers informing them that if at the end of a certain period (usually four to six months) they have not shipped goods by any vessel other than those despatched by members of the association, they will be credited with a sum equivalent to a certain part (usually 10 per cent) of the aggregate freights paid on their shipments during that period, and that this sum will be paid over to them if at the end of a further period (usually four to six months) they have continued to confine their shipments to vessels belonging to members of the association. These devices have retarded the growth of Indian shipping while on the other hand the foreign companies have flourished owing to these devices and also owing to the fact that they receive subsidies from their Governments. British Companies enjoy a preferential position, while no subsidies are given to Indian Companies. In addition to this the foreign shipping Companies also use another weapon, namely, heavily underselling the Indian competitors with a view ultimately to raise the rates to a much higher figure after destroying the rivals. This state of things should no longer be tolerated now.

Irrigation About 80% of India's population is engaged in agriculture and water is the greatest agricultural necessity of this country. Rainfall is unequally distributed irregular throughout the season, and liable to failure and deficiency. For these reasons the Government of the country and the people have tried to supplement and conserve the rainfall by the construction of wells and storage reservoirs and bunding the streams from times immemorial. There are many tracts like Sind, Rajputana and the south-west Punjab, where practically no rain falls and cultivation is not possible without artificial means of irrigation. There are other tracts where rainfall is precarious, as the uplands of the Deccan. Certain crops, like sugar-cane and rice which require water all the year round cannot be grown without artificial irrigation. Also, due to the commercialisation of crops and increase of population the growing of winter crops has become

essential, which cannot be grown due to absence of winter rain in India, unless there are good facilities for artificial irrigation.

So, we find that the necessity and importance of irrigation has increased all the more in modern times. The chief advantages of irrigation are increase in the yield of crops, stable agriculture, protection from famines, larger railway profits in agricultural provinces like the Punjab, and financial gain to the State.

Varieties Irrigation works are divided under four heads in the statistics published by the Government of India, namely, canals, tanks, wells and 'other sources'. As explained by the Irrigation Commission, under canals come all works of any considerable size for diverting the water of streams or rivers and carrying it on to the land, and all natural depressions, the water of which is used for irrigation, under wells are included works for giving access to the subterranean supply or to the waters or rivers which, running deep below the level of the ground, have to be lifted vertically before they can be used for flow irrigation. By tanks are meant those artificial works which are constructed for storing rain or river water when it is available for future use. 'Other sources' have not been clearly defined, but consist of temporary bunds, lift irrigation from rivers and channels which are too small to be classified as canals.

Canals. Canals are now regarded as the most important form of irrigation, and form the glory of the Indian irrigation system. They are of two kinds, according as they draw their supplies either from perennial rivers or from water stored in artificial reservoirs. The first kind are those which are constructed from rivers rising from the Himalyas, where perpetual snow acts as an inexhaustible source of supply all the months of the year; while the latter are mainly associated with the rivers of the peninsula where no such natural storage is available. The important examples of such works are found in the Madras Presidency, the Deccan, the C P. and in Bundelkhund. Canals, which draw their supply from perennial rivers, may again be divided into perennial and inundation canals. The former are provided with head-works, enabling water to be drawn from the river by means of some obstruction placed in its bed, whereby the water may reach the height required to secure admission to the canal. Within this class fall the great systems of the Punjab and the U P. Inundation canals have no such means of control, and water only finds its way into them when the natural bed of the river reaches the necessary height. The most important inundation canals in India are those of Sind, but they also exist in the Punjab and draw their supplies from the Indus and its tributaries. Such canals are useful only in flood times, and so irrigation period in their case lasts only from June to September; while during the latter period of the year wells are to be used for irrigation. The Sukkur Barrage has remedied this defect, because a barrage has been constructed across the Indus. Similar

steps are now being taken to transform some of the inundation canals in Sind and the Punjab into perennial ones.

Tanks Irrigation in India does not end with her canals only. Tanks have also formed a very important means of irrigation since very early times. They are highly developed in Madras because canal irrigation is not possible there, on account of the bad configuration of the soil. They vary from storage reservoirs which irrigate several thousand acres, to works which irrigate a few acres only. Occasionally they act as regulators and storage reserves for canals and sometimes their purpose is to maintain the water level in wells rather high. The larger tanks are Government works, as those in the *Ryotwari* areas of Madras and Bombay. Elsewhere, the smaller tanks are owned by the village communities, or private individuals.

Wells. Wells are a vital factor in Indian irrigation. Next to canals, wells are the most important source of irrigation. These wells are of all kinds, varying from mere holes in the ground to elaborate machinery structures, or tubes of small bores, from which, by power pumping, large and continuous supplies of water can be obtained. Well irrigation is practised in all those places where the sub-soil water is near enough to be utilised easily and conveniently. This system is very much in vogue in different provinces and is the most convenient method of irrigation. About 25% of the irrigated area is irrigated by means of this agency. There are about two and a half million wells in various parts of the country. They irrigate about 13½ million acres of land and have a capital outlay of about one hundred crores of rupees. Well irrigation is most highly developed in the U. P. This form of irrigation is more efficient and useful than canal irrigation. The wells are mostly private works, but sometimes subsidies are also given by the Government. The Agricultural Department has done a lot to popularise tube-wells worked by small engines and now by electricity. The Agricultural Commission recommend Government assistance in the construction of tube-wells by advancing Taqavi loans, the provision of technical advice and giving boring equipment and skilled labour on payment of moderate fees. They also recommend that small co-operative societies may be encouraged for sinking and working of wells in tracts where the holdings are small, and it is beyond the capacity of individual cultivators to construct wells. Tube wells have proved a success in U. P. and have also served the purpose of feeding different distributaries of canals.

In addition to irrigation by canals, wells and tanks, numerous temporary bunds for the storage of rainy water are constructed each season, and water is obtained by lifts from rivers and streams. In the aggregate, these various subsidiary sources irrigate about ten per cent of the total irrigated area. The Agricultural Commission recommend that the Agricultural and Engineering Departments, responsible for pumping operations, should devise cheap and efficient pumps, and induce private enterprise to undertake these works and provide a repairing service to them.

Productive works. Prior to 1919, the Government irrigation works were divided under three classes, from the point of view of financial results, namely, productive, protective and minor.

The capital outlay on productive works was sanctioned against loan funds with the expectation that they would prove remunerative. Such works are found mostly in Northern India and Madras. They represent a capital outlay of about Rs. 80 crores and irrigate on an average about 25 million acres. There has been a steady and constant increase in the area irrigated by such works in different Provinces.

Protective works. They are not considered likely to fulfil the conditions of a productive work, but they were sanctioned against the famine fund on the ground of their protective value. So they are financed from the general revenues of the country. They are found in precarious tracts like the Deccan, because they were meant to ensure protection from famines. The capital outlay on them is about Rs. 45 crores.

Minor irrigation works. There are miscellaneous works which include all works which are not classed as productive or protective and the outlay on which used to be sanctioned against the general revenues of the Government.

Since 1921 this old classification has been given up. It is now possible to finance any work of public utility from loan funds, and so from this time onwards we find a great change in Government policy. Irrigation became a Provincial reserved subject, and all hindrances, financial and otherwise, disappeared. Development of irrigation has proceeded successfully. As many as 19 new schemes were soon taken in hand. The greatest of these were the Sukkur Barrage in Sind, the Sutlej Valley Project in the Punjab, and the Sarda canal in the U. P. The Sukkur Barrage is one mile long and is the biggest work of its kind yet built. It irrigates 5 million acres. The actual cost of the scheme amounted to much more than Rs. 20 crores which was the estimated cost.

The Sutlej valley project consists of four weirs with ten main canals, taken off from above them. This multiplicity of canals and rivers seems a peculiar feature of the scheme. The Sarda canal was originally sanctioned in two portions, the Sarda Kichna Feeder Project, and the Sarda South Canal. The whole system embraces some 650 miles of main canal and branches, 3,600 miles of distributaries, and 110 miles of escapes. It irrigates $1\frac{1}{2}$ million acres of land. In 1925 the Secretary of State sanctioned the Cauvery Reservoir Project in Madras. This scheme provided for a large dam at Mettur on the Cauvery to store over 90,000 million cubic feet of water. Other schemes like the Bhander Data Dam, the Lloyd Dam and the Nira Valley Project, have also been being carried out in the Deccan. Thus we find that in all Provinces new schemes were taken in hand and an ultimate area of 50 million acres under Government was brought under irrigation.

The Agricultural Commission recommends the establishment

of a closer relation between the Irrigation Department and the Agricultural Department, creation of local advisory committee to deal with complaints regarding irrigation matters; the establishments of information bureaus at Delhi, and also paying greater attention to irrigation research. There are also certain dangers associated with canal irrigation. It is, therefore, necessary for the engineer, the soil physicist, the agricultural chemist and the medical and sanitary experts to confer together before any irrigation scheme is launched. Water logging and salt effervescence are the greatest dangers. Soils have become deteriorated in the Punjab, and alkali lands have appeared in Bombay due to the excess of water. Water is wasted because the cultivator becomes greedy and impatient about it as he is not certain to get it again. Due to lack of drainage arrangements, the soils become not only deteriorated but malarial also. The opinion of experts regarding irrigation in India is that the rivers have already been utilised to the greatest possible extent and so canal irrigation has already reached the limits of extension. Any further development in irrigation is now expected to be either through ordinary wells, or electric driven tube wells or water reservoirs specially constructed for storing rain water. The total area irrigated by Government works was about 33 million acres in 1939 and the total capital outlay about Rs. 152 crores. The net return on this capital was 59 per cent.

There are two methods adopted by Governments of different Provinces as regards the charges for water. In the one, charges for water are collected separately from land revenue, while in the other land revenue includes the rates for water also. Where, as in Sind, agriculture is impossible without irrigation, 9/10th of the assessment is regarded as due to canals. But in U. P. and the Punjab, the water charges are collected separately from land revenue. The area actually irrigated is measured, and a rate is charged per acre according to the crop grown. Also high rates are charged where water is taken by 'flow' and not by 'lift'.

Quite a different system, called the long lease system, is in force in Bengal and the Central Provinces, under which the cultivators pay a small rate for a term of years whether they require water or not. The Government in return guarantees the supply of water at all moments, whenever demanded; and thus this system makes the supply of water secure and certain.

In all prevailing systems the cultivator pays only a very small proportion of what he gains by irrigation in the shape of charges for water. The rates charged vary considerably with the nature of the crop grown. They also vary between one province and another, and sometimes in the province itself. The Government guarantees sufficient supply of water for irrigation as available. If the crops fail, the Government sometimes remits the whole or part of the water assessment. Taken as a whole, irrigation is offered on very easy terms and a very little part of the profits through irrigation is charged as water rates.

CHAPTER X ORGANISATION

Distinction from labour. Organisation is the fourth factor of production which we have to discuss next. If we take labour in its wide sense, organisation is not distinct from it. Labour is defined as any physical or mental exertion directed towards some economic end. So, organisation, too, can be called that mental exertion which has an economic end in view. From the purely theoretical point of view there is nothing wrong in this interpretation, but in our day to day affairs, we cannot take labour in such a wide sense. Labour is both executive and directive, and there is a fundamental difference in the nature of the two. It is difficult no doubt to execute a work, but it is still more difficult to direct it. One who is in charge of directing a work, cannot confine himself only to one aspect of it. He has to keep an eye all round.

We see a number of men working at a place where construction work is going on. There are carpenters, tile makers, masons, *bhishties* and ordinary labourers. They are all engaged in their respective tasks. There is, however, one man who is in charge of the whole construction work. He has to keep in mind the work that is being turned out by different people and its quality. He has to keep a number of things in his mind at one and the same time. He has not only to fine or turn out a man, if his output is unsatisfactory, but he has also to decide whether it will be worth while to engage a given number of labourers, and whether it is not possible to reduce this number by one or two or more, or, if necessary, to increase it. He has to decide how many carpenters *bhishties* and other labourers should be engaged for the completion of the work within a particular time. He has to make arrangements for the uninterrupted supply of bricks, lime, and other raw materials necessary for construction.

The person who is in charge of directing the construction of the house, is called an organiser; while all those who are engaged in its construction, are labourers. The duty of an organiser is to bring about a proper and scientific combination between different factors of production when directing an operation. He has to decide what amount of land, labour or capital should be applied in any undertaking; and he has also to select and finally decide upon the time and place for starting and continuing the work. He is like a general, who directs the infantry, the cavalry and air and sea forces, in order to achieve the objective, with the least possible delay, and with as little sacrifice as possible.

Needless to say, it is not every body who possesses this capacity to lead or organise, though there are many who have

the capacity to execute work according to directions. Owing to this scarcity, organisers are paid more highly than other labourers. With the progress of society, productive processes have become very complex. We now produce in anticipation of the demand, and for customers whom we do not know, and have never seen, and who live, sometimes, at a distance of thousands of miles from us. Under these circumstances it is not very simple to adjust the supply to the probable demand in such a way that there may be neither too much nor too little of the commodity produced for sale.

Not only has the problem of sale become highly complex, but the processes of production have also become so complicated that it requires a high degree of ability to adopt the best and cheapest methods and reject the other ones. The various factors of production can be combined in numerous ways, and the chief function of an organiser is to select that combination which is expected to yield the best result. If this expectation is actually realised the organiser is a successful business man if not, he will have to make way for one whose expectations usually come out true.

In modern industrial world, competition is not so much between land and land, labour and labour, or capital and capital, as it is between one organisation and another organisation. If one country succeeds in driving out another from a market, it must be due more to superior organisation of the market than to any thing else. In India, for example, there is enough land, that is to say, our natural resources are not scanty; there is plentiful labour, perhaps too much of it; and there is also no great scarcity of capital. But what we really lack in, is the capacity to organise the available factors in the most efficient way. When we develop this capacity, and also become free from certain non-economic handicaps, we can become as rich as any industrial or agricultural nation of the world, in a very short time.

Division of Labour. In very early times when man's wants were very few, the family was the self-sufficing economic unit. That is to say, all the material requirements of the family were satisfied by the work of the members themselves. They did not depend upon the work of others, and so there was practically no interchange of products. Inside the family circle, however, there was, even then, a sort of specialisation of functions or duties. One member collected fruits from trees or wild berries from bushes; another caught or killed animals for food; the third, collected dried leaves or sticks from the forest; a fourth chiefly the mistress of the house, cooked food; the fifth looked after the construction or repair of the dwelling, and so on. All requirements of the family were satisfied by the work of different members of the family itself, but each member was either entrusted with, or took upon himself, a particular task which he could do best. This assignment of different tasks to different

individuals, according to their capacities or aptitudes, is known in Economics as division of labour.

It will be noted that division of labour in this sense is as old as human society. From the very beginning of creation, there has been a division of labour, at least between man and woman. Owing to the difference in physical constitution of the two, one is more fitted to perform some kinds of duties than the other. The heavier and the more difficult tasks are undertaken by man; the lighter and easier tasks are left to be accomplished by woman. But even as between man and man, differences arise and are soon recognised. One man in the family can swiftly climb up a tree, while another can take a correct aim at an animal. This is enough to decide for them their respective duties in the family.

In the course of time, as wants increased, it became difficult for a family to satisfy all its requirements by its own labour. It became necessary for the head of a family to confine himself only to one particular activity and take the assistance of other members of his family in the performance of this one activity alone. By this time, we should suppose, man reaches the agricultural stage, and handicrafts also are fairly developed. So, one person adopts one calling and another a different one. Each man is helped in his own calling by other members of his family. Very few wants of a family can now be satisfied directly by its own work; others have to be satisfied by bartering one's own products for those of others.

So, after some time there is a separation of callings as between one family and another, and the self-sufficiency of the family disappears. Division of labour, which was previously confined only within a family circle, now extends to the whole village. Instead of the family the village now becomes a self-sufficing economic unit.

What happens at this stage is that the agriculturist raises food grains or other necessary crops; the weaver produces *thans* of cloth; the shoe-maker shoes, and so on. After different families produced those commodities in the production of which each has specialised itself, they barter these goods with one another, and so with the combined effort of the village the wants of each family are satisfied. This is *division of labour into different callings*.

Although different families adopt different callings according to their inclinations, the division of labour is carried on still further within the family. A weaver, for example, does not perform the whole work of weaving from beginning to end, himself alone. He is assisted by other members of the family. For this it is necessary to divide the work into a number of processes, and then see if some other members of the family can render any assistance in any way. Accordingly, some processes which do not require very great labour, or very great skill, are assigned to less important members of the family, while those that require greater labour or skill are undertaken by the head of the family himself. Thus spinning is done most by the

mistress of the house, the unwinding or spreading of yarn by small girls, sizing, either by the head, or the mistress of the family or sometimes by a grown up boy or a younger brother or other male or female relative of the head of the family. The work of weaving proper is always done by the head. As in weaving, so in agriculture, carpentry, blacksmithy, shoemaking and so on. Each separate calling is splitted up into a number of processes which are assigned to different members of a family, according to their capacities and tastes. This is *division of labour into different processes*.

This stage had the longest span of life. It lasted till the Industrial Revolution. During this period, however, there was a great change both in the meaning and character of division of labour. Before this, division of labour meant, as mentioned above, splitting up a work into a number of processes with a view to assign particular ones to those who possessed necessary aptitudes for their performance. After the Industrial Revolution, this sort of division of labour practically disappeared from modern industrial world. The work that was previously performed by labourers, began to be performed by machines. Consequently, it was no longer division of labour but only specialisation of *machinery*. This was the change in its meaning brought about by changes in the methods of production. There was also a further change in its character. Before the Revolution, it was only a splitting up of the work into a number of processes. Now however, even these processes were sub-divided and each sub-process was assigned to a special type of machinery, designed and constructed for this special purpose.

This is where we stand today, in the matter of division of labour. We, in India, have still to deal with the original type of division of labour, rather than with the later type, except so far as we have adopted modern industrial methods of production. India is still mainly an agricultural country, and her methods of production, not only in agriculture, but in other fields of production also, are similar to those that were prevalent in England and Europe before the Industrial Revolution. Only in industrial cities, like Bombay, Calcutta, Ahmedabad, Cawnpore etc, where industrial production is carried on modern lines, do we find division of labour in its new sense.

Advantages of the division of labour. *DIVISION of labour* has its advantages, not only in agricultural or industrial, but in every walk of life. The most important work of an organiser is to introduce division of labour among men at his disposal. It requires a very great knowledge of men to assign a task only to that individual who is best fitted to perform it. The choice of agents is always the most difficult, as also the most important, of the duties of any man in a position of responsibility. If this choice is properly made, and each man is entrusted only with that part of the task for which he is eminently fitted, the work will undoubtedly proceed smoothly and quickly.

When applied to the production of wealth, division of labour has a peculiar importance. A careful study of economic and industrial development of the world will show that it has depended mostly upon a careful and scientific division of labour in its various phases. The advantages may be enumerated as follows.—

Increase in skill. When a man is entrusted to perform only that work for which he is eminently fitted, and he continues to do it over and over again, after some time he acquires a great mastery over it. His movements become almost automatic, and it is no longer necessary for him to keep his mind constantly engaged on this task. He can afford to keep other things in his mind while he is doing something different. When a man starts cycling, he has to keep his whole attention fixed in maintaining his balance. A little inattention may bring him into collision with a person or thing. After sometime, when he acquires a control over his movements, he can easily afford to be constantly talking to his friends, who are also on their respective bicycles, and the balance takes care of itself, without any conscious effort on the part of the cyclist.

Economy of time and capital. When a man has to perform several processes, he takes some time in leaving one and taking up another. This time is wasted for nothing. It can be avoided when a man is put in charge of only one process. In such a case, no change is called for, and the waste is avoided, thus resulting in an economy of time. The same holds true as regards capital, or implements and tools. With every change of process, a change of implements and tools is necessary. When engaged in one process, and using implements and tools pertaining to it, other tools must remain unused. This clearly means waste. On the other hand, when he is engaged only in one process, he continually uses tools and implements necessary for the purpose, and waste of capital is avoided.

Invention of machinery becomes easier. As long as a work remains complex, it cannot be performed by a machine; but when it is splitted up into different process—each part much simpler than the whole—it is time for machinery to take up the work. It is remarkable that some of the important machines were originally designed by workers engaged in performing only a small part of a complicated task.

More scientific selection of workers With the division of work into a number of processes, it becomes easier to assign a particular task only to that individual who is really capable to perform it. There are some processes which require greater strength, others that do not require so much strength, but still they require adults to undertake them. There are still other which require only the presence of a certain person and a very little amount of physical strength. In this way the process can be apportioned among men, women and children. If a less skilled person is entrusted to do a work which requires greater skill, the work is spoilt, causing a great loss; but if a man possessing a

degree of skill is entrusted with a work which requires very little skill, even then there is a loss, because there is a great waste of talent.

Disadvantages of the division of labour. Every thing has its dark side; so is the case with division of labour. When it was confined among different members of a family pursuing a calling, it had no disadvantages; but after the introduction of the Domestic System of production in England, and still more so after the Industrial Revolution, the nature and character of division of labour underwent a great change. At the time of Adam Smith, the manufacture of a pin was divided into 18 different processes, now it is divided into more than 80! If a person earns his livelihood by performing any one of them he no doubt achieves his immediate object of earning money quite all right, but it is really no great achievement for a man if throughout his life he does nothing else but make an eighteenth or the eightieth part of a pin.

Again, if a worker is engaged in the production of a whole article he will have a sort of inner satisfaction when he finds his work completed, and sees the object of his toil before him. His artistic sense is satisfied, and he takes a pride in the thing produced. This is not possible when he does not produce the whole thing but only a part of it.

While engaged throughout in only one process, the worker cannot help feeling dull at the monotonous repetition of the simple movements of his hands or of the machine. The task becomes highly taxing, and his whole life becomes dull and uninteresting. There is also, perhaps, too much of interdependence as a result of division of labour. One class of labourer becomes entirely dependent upon another class. If a certain thing goes wrong at one place, it must have its full effect on the whole industry, and in course of time all members suffer for the faults of a few.

On the whole, it may be said that the advantages of division of labour far outweigh its disadvantages. The net result of the various advantages discussed above is that the output of the industry, where division of labour is introduced skilfully and scientifically, is enormously increased, per unit of time, labour and capital, and so it can be sold in the market more cheaply than before the introduction of the division of labour.

Division of labour limited by the extent of the market. The greatest advantage of division of labour, or of specialisation of machinery, is that it cheapens the product, which makes it easier to sell in the market. With a more scientific and more thorough division of labour, there is a greater likelihood of the price of the commodity becoming still lower, but there is an ultimate limit to it. The aim of all production is the disposal of the product in the market, at a fair price. As a matter of fact, the process of production is not complete unless it has resulted in the disposal of the product in the market at a fair price.

But if markets are not available, or, if for any reason the available markets are lost, there will be great disturbance in the

whole field of production. When goods produced cannot be sold, it is no use producing further goods, at the same speed as before. Production will have to be slowed down. The division of labour already introduced, will have to be modified to some extent, in certain fields of production. If the loss of markets turns out to be permanent, some labourers will have to be dismissed, and some specialised types of machines, having not much work, will have to remain idle. There will be no scope and occasion to introduce further division of labour, or invest money in highly specialised machines. This can be profitably done only as long as there is no deficiency of markets, and goods command a sale at a fair price. This is the meaning and significance of the phrase, 'Division of Labour is limited by the extent of the market'. The extent of the market, of course, means the extent of the sale of the commodity in question, in the markets available at the time. This accounts for the anxiety of different nations to capture new markets and to keep up old ones. The prospects of an industry depend upon the availability or otherwise of adequate markets. The amount of capital invested, the large scale of production introduced in the business, the number of labourers employed, and the nature and extent of the division of labour; in short, the entire inner structure of the industry is affected by the presence or absence of markets for the produce. If markets are fewer, division of labour will have to be restricted and as a result of this the price of the commodity shall have to be raised by however so little.

Localisation of industries When a particular industry grows and develops specially in a particular locality, the phenomenon is called *Localisation of Industries*. The Jute industry has developed specially in Bengal; cotton industry in Bombay; tea industry in Assam, sugar industry in U. P. and Bihar; cultivation of wheat in the Punjab and Western U. P., and so on. So we say that these different industries have become localised in the respective areas mentioned against their names.

Its causes. The chief cause of the localisation of industries is the suitability of the area to the development of the industry from the natural or climatic point of view, or some other natural cause.

Let us examine the industries mentioned above, one by one. Jute industry has been localised in Bengal, because jute requires for its growth a type of soil which is yearly washed down by water, and so again rendered rich after growing the exhausting crop once. The area where jute is grown now-a-days all gets covered with water immediately after the crop is reaped.

Cotton industry has become localised in Bombay and Ahmedabad, because these places are very near the chief cotton growing belts of India. The black cotton soil of Central Provinces, Berar and Bombay, is best suited for the growing of cotton, which is the raw material for the industry. The natural facilities for a harbour in Bombay must have also acted as an additional cause

for the selection of the locality for the industry. It is easier to export heavy cotton goods and import heavy textile machinery, when the place selected for the industry has also a good harbour.

Tea industry has flourished in Assam on account of the peculiar requirement of the tea plant—namely, frequent and sharp showers of rain, but no standing water near the roots of the plants. Assam satisfies all these requirements. The tea plant is grown on high sloping grounds, and the province has become the home of tea.

Sugar industry has developed in the United Provinces and Bihar because these two provinces grow the largest crop of sugar cane due to the suitability of their soil and climate. There being also a net work of railways and roads in the U. P., it is easier to transport the heavy raw material to the factories within a short period of its removal from the field.

The Punjab and the Western U. P. have become wheat producing areas because their climate is cool and dry, and meets the requirements of the wheat plant at the time when it sprouts, grows, develops, and ripens.

So we find that industries are localised in particular areas because of some natural advantages which are not present in other localities. Sometimes, however, industries of a minor character become localised for no other reason than that of the accident of a start. Such industries are mostly those that are run on a small scale, and are of the nature of cottage industries. The scissors making industry in Meerut, for example, cannot be accounted for except on this ground. The same seems to be true of the lock industry at Aligarh, blanket industry at Muzaffarnagar, carpet weaving at Bareilly, pottery making at Mirzapur, knife industry at Hathras, and metal ware industry at Moradabad and so on.

Advantages. Several advantages have been attributed to localization of industries.

In the first place a number of subsidiary industries spring up in the locality where an important industry is localised. Consequently, it becomes possible for junior members of the family of a labourer employed in the main industry, to get jobs in the subsidiary industries. This helps the labourer in augmenting his income. Under such conditions it is even possible that a labourer may accept lower wages, in view of the supplementary earnings of other members of his family, which may ultimately go to swell his total income.

In the second place, on account of a very great demand for different transporting agencies, special means of transportation develop in the course of time, in order to give increased facilities to trade. These transporting agencies in their turn, earn a great deal through the localized industry, on account of a regular and big demand for their services. In the same way, facilities like

those of banking and stock exchange, are also provided, which benefit not only the industry, but the whole locality by their services. On account of the constant demand of the industry for the requisite type of labour, large numbers of labourers begin to frequent it in order to get employment. This affords the industry a better selection and a constant supply of labourers. Organisers can form Employers Association and can exchange views on important matters with great facility, and adopt a common line of action on important occasions. In the same way, labourers can form themselves into organised Unions, and can safeguard their interests by collective bargaining. Their children can learn a great deal about the technique of the industry without any special training and any special effort on their part. They can catch so many things as if from the air.

Its disadvantages. Some disadvantages of the localisation of industries are also pointed out, but they are of a minor character. We will mention only one which is important in our view. It is a fact that the locality becomes too much dependent upon one industry alone. If, for any reason, this one industry suffers a set back, there is a great deal of unemployment and misery, especially in the ranks of labourers who mostly depend upon it, and among those who are employed in subsidiary industries which are themselves dependent upon it. The only remedy is that as far as possible, a few independent industries should also be encouraged, so that the demoralization may not be so complete. But it is not easy for labourers engaged in an industry to get immediate employment in another, when the first falls on evil days. The disadvantage is, therefore, a real one, and deserves the attention of thoughtful people of the locality.

Territorial division of labour When the principle of localization of industries is extended to different countries of the world, it is called the principle of the territorial division of labour. Different countries of the world are fitted, more or less by nature to grow or produce different commodities, in accordance with their natural resources, their climate and soil and the different aptitudes of their people. It is said, for example, that tropical countries, with fertile soil and ample water, are better fitted to grow agricultural produce; while countries, like England, that do not possess a rich soil, and a tropical climate, but have large quantities of coal and iron, and an efficient labour force, should concentrate upon the production of manufactured articles. As division of labour between man and man results in an advantage to both, in the same way territorial division of labour can prove advantageous to different countries concerned.

This point of view is not applicable to present day conditions of the world. The present tendency, for obvious reasons, is not for one country to specialise in the production of only one type of commodities, but it is to diversify its economic and industrial activities in such a way that it may not remain dependent upon other countries for the satisfaction of its urgent and primary

needs. When the whole world becomes one unit, and different countries of the world forget their mutual rivalries and jealousies, which does not seem to be likely in the near future, the principle of territorial division of labour may get its supporters. Till then, it cannot be taken seriously by any one, except mere theorists and internationalists. The last Great War and the present world war have demonstrated the danger of one country's dependence upon others for essential commodities.

THE LAWS OF PRODUCTIVITY

Combination of the factors of production. While explaining the meaning of organisation, and distinguishing it from labour, it was pointed out that the main function of an organiser was to combine or bring together different factors of production, in such a way that the output from the productive enterprise may be the largest and the cheapest. This depends, in a great measure, upon the skill of the organiser with which he combines the different factors. Although, apparently, there are only three factors of production that an organiser has to combine, in reality they are not three, but, perhaps, thirty, or even three hundred! Land is referred to as only one factor of production, but although the simplest of all, it too, presents many difficulties, when certain problems in relation to it prop up.

Let us take a simple illustration. A person wants to start a certain business with a definite amount of capital. The first question that comes up before him is the selection of the site. He has to compare and contrast the advantages and drawbacks of different localities with one another, together with the cost that he will have to incur in each case. If he spends more upon land in the very beginning, there may not be enough left to be invested in machinery, or implements and tools, or stock-in-trade. But if he does not spend enough upon it, and selects a less costly but also a less frequented site, he does not feel sure if he will get enough custom. There may be any number of sites worthy of his attention, each having some advantages and some drawbacks. So, with reference to land alone, the problem assumes a complicated form.

In the same way, there are different grades of labourers who have to be engaged by the organiser. Some are skilled, others are unskilled, but between them there are many minor graduations. Each of these attracts his attention; each promises certain advantages, but has also its drawbacks. Apart from workmen, he has to keep other classes of labourers. He has to appoint assistant managers in charge of different departments; clerks, typists, peons, commercial agents, advertising agents, and so on. He has to carefully compare the benefit that he hopes to derive from each, and only then make his final choice.

Capital presents still more difficulties. It is a simple enough term, but includes much more than is visible on the surface. There are many alternative types of machines which can be used

in the production of a particular commodity. How to apportion the available amount of capital in different kind of machines, raw materials, electric fittings, factory plant, furniture, and other furnishings; what amount of capital to keep in reserve for the payment of wages, for advertisements, for new experiments, and for contingency; such and many other problems attract his attention. But this is not all. He is not only to decide as between different sites of land, different grades and classes of labourers, and different qualities of machines, implements and tools, but he has also to compare the advantage of land with labour and capital, of labour with land and capital, and of capital with land and labour.

The problem of making a final choice now assumes its real character and magnitude. If he makes the slightest delay in arriving at a decision, he is left behind in competition; if he commits a serious mistake he is driven out of the business. So, the main problem before an organiser is that of a skilful combination of various factors of production, so that the commodity that he produces may turn out to be the best and the cheapest, or, at least, as good and cheap as others of the same nature in the market.

The law of substitution. Before making his final choice regarding the site of land, the number, grade and class of labourers, and the quality and number of machine and other things necessary for the prosecution of the business, the organiser has to reject many a site, many a labourer and many a machine or implement or tool. He rejects that which he thinks less advantageous and more costly, and takes in that which, in his view, is likely to yield more and cost less. That is to say, he substitutes the less costly and the more efficient factor or sub-factor, for the more costly and the less efficient. It should not be forgotten that the various factors of production are not supplementary to one another but are also competitive. The work of labour may be done by capital, or the work of land may be done by labour. For example, if it is intended to increase house accommodation, it may be done either by acquiring more land and then constructing a single-storied house over it, or, by adding an additional story to the existing house. The first course requires more land the second more capital. In this case land and capital act as rivals to each other. They offer an alternative course to the organiser. The organiser, therefore, compares as minutely and carefully as he can, the advantages that he hopes to derive from adopting the one course or the other. He substitutes better kind of land, labour and capital for the less satisfactory, and also substitutes, as necessity arises, land for labour or labour for capital with a view to deriving the maximum amount of advantage from each unit of his expenditure upon any factor or sub-factor of production. This tendency is known as the principle of substitution.

The principle of diminishing returns. Let us suppose that

after the application of a great deal of industry and skill, the organiser succeeds in starting his business with a perfect proportion of various factors and sub-factors of production, and that he attains a fair amount of success. He makes as good profits as others of his class have been making before him, and encouraged by his initial success, he decides upon enlarging it. If no factor or sub-factor was either too much or too little at the time that he started the business, he will have to make some changes in all the factors if he wants a proportionate increase in the output. But if he increases only two factors, suppose he makes them twice as much—but does not increase the third, the total output of the business will not become double, but something less than that, due to the relative scarcity of the third factor. If he succeeds in doubling the yield of his business by doubling only the two factors and leaving the third untouched, it will clearly prove that the quantity of the third factor of production was too large when the business was started. But we have supposed that the organiser did not commit any such mistakes at the very commencement of his business. So we conclude that if he wants to increase the output of his business proportionately to an increase in his investment, he will have to increase all the factors of production in due proportions.

There are, however, circumstances when inspite of utmost efforts an organiser is not in a position to increase the quantity of all factors of production. What will be the result under these circumstances? Clearly, the output will not be as much as it would have been if the third factor of production could also be increased. As illustrated above, if he doubles his investment in the other two factors of production, leaving the third as it was before, the new output will not be double, but less than double. The other two factors have contributed their own quota in the increase, and to that extent the output has also increased; but the quota of the third factor remains exactly what it was before, with the result that the increase in the yield is not exactly double. This is the essence of the principle of diminishing returns. *It says that if out of several factors of production, one is not increased, while the others are increased, the increase in the total output will not be in proportion to the increase in the other factors of production, but will be less than that. If the other factors are doubled, the increase in the total output will be less than double.*

Let us give another illustration to make the point clearer. A person wants to start cloth business with a capital of Rs 10,000. He takes a shop in the city cloth market on rent, employs 2 salesmen, and then goes to the nearest wholesale cloth market and purchases cloth worth Rs 10,000 and then begins his business. During the course of the year, he finds that he has earned fair profits, and so he decides to increase the scale of his business from next year. He invests another Rs 5,000, and employs another salesman in view of the enlarged scale. But he cannot increase the area of his shop, nor can he find a bigger shop in

the vicinity of the old one and situated in the central cloth market. When he had started his business, he had no idea of increasing its scale so soon; and so he had hired a shop which was only just big enough to decently hold goods worth Rs. 10,000. The shop is, therefore, already full to its utmost capacity. Nor can he substitute more valuable goods which may occupy less space, for less valuable ones which are bulky. even at the commencement of his business he had kept in view all these things very nicely and accurately.

So he finds that, although owing to a greater variety of goods in his shop, more people frequent it, and he commands larger sales, yet they could have been larger if he could only increase the capacity of his shop or get a bigger shop very near his old one. The customers first come in much larger numbers than before, but some of them finding the shop too narrow and not very comfortable to sit for more than a very short time, transfer their patronage to other shops. The returns to the business man do increase, but not in proportion to the increase in capital and labour. He increased his capital by 50% and his labour also by 50% or nearabout, but he was not able to increase the third factor i.e., land (in this case represented by the area of the shop) to any extent. The increase in returns therefore is not 50% but less than that.

If this business man invests another Rs 5,000 and engages an additional salesman, but even then does not change his shop, the increase due to the second Rs 5,000 and the second additional man, will not be even as much as in the case of the first additional Rs 5,000 and the first additional man. In technical language we say that this business is yielding diminishing returns. It may be objected that the illustration selected is such that is not usually met with in actual life. It is very unlikely, it may be said that a cloth merchant hires a shop only just big enough to hold goods worth Rs. 10,000 in the best manner possible, and not big enough to hold decently further goods and accommodate easily a larger number of customers.

Let us, for the sake of satisfying our critics, suppose that the shop can hold further goods worth Rs. 5,000, and can also conveniently provide room for an additional salesman and additional customers who begin to frequent the shop attracted by a greater variety of goods. As a consequence, let us also suppose that the increase in his income is not less than 50% but exactly 50 p c. This will only prove that the amount of capital and labour invested in the shop was too little in the beginning as compared to the area of the shop. Any way, if with an increase of 50 p c. in the amount of capital and labour the increase in profits is more than 50 p. c. we will say that the returns are increasing; if they are exactly 50 p c we will say that they are constant. But if not after the first increase in the amount of Capital and labour by 50 p. c. with the second or the third increase in capital and labour the sale must cease to increase proportionately. Whenever this stage arrives, it will have to be admitted that returns

have begun to diminish. So it does not really make any difference in the least whether diminishing returns are supposed to come into operation with the additional investment of the first Rs. 5,000 or with the second. Sooner or later, they must come into operation, if any one factor of production is kept constant and other factors continue to be increased.

The principle of diminishing returns is an important principle of very wide application and very great practical importance. It is very necessary to understand it thoroughly in all its aspects and applications. In our illustration we applied it to urban land, where it was not easy to acquire more land of the same kind. In a crowded locality, the value of land rises very much, only on account of its scarcity in that particular locality. Land may be available elsewhere in abundance, but it is impossible sometimes to get even an extra inch in a crowded and valued quarter. The principle is however applicable in equal measure to every productive enterprise, where more than one factor of production is employed. It is applicable to agricultural and manufacturing industries; to building and urban sites; and to fishing and mining also in slightly modified forms. Let us apply it to some other cases as mentioned above.

Diminishing returns as applied to agricultural land. The law of diminishing returns as applied to land is thus stated by Marshall :—

"An increase in the capital and labour applied in the cultivation of land, causes, in general, less than proportionate increase in the amount of produce raised, unless it happens to coincide with an improvement in the arts of agriculture"

The law as stated above refers to a tendency that has been observed when plots of land are intensively cultivated. If on a plot of land of a definite area, say 10 acres, a certain crop is grown, some amount of labour and capital must be necessary for the purpose. The land has to be ploughed, watered, and manured. These operations require for their due performance, a certain amount of fixed capital in the form of bullocks, ploughs, and other implements and tools; a certain amount of circulating capital, as seed, water and manure and some amount of labour. For purposes of convenience the phrase, "a dose of labour and capital" is used to denote the application of agricultural capital and labour as mentioned above. When it is said that a dose of labour and capital has been applied to agricultural land, it means a definite amount of agricultural work done on the plot by the cultivator with the help of implements and tools. All this ultimately denotes a certain amount of money expenditure. Consequently, if one dose of labour and capital is considered equivalent to a certain amount of money, it will be very convenient for further discussions of this nature. Only one caution is necessary. When during a particular discussion a dose of labour and capital is taken to mean a certain amount of money, it should not be altered till the discussion is over. For this

discussion let us suppose that one dose of labour and capital as applied to a plot of land of 10 acres, is Rs. 50.

We may now examine the law as stated by Marshall. It says that if on a plot of land we go on applying more and more doses of labour and capital, a time will soon come when the return from this plot, per dose of labour and capital, will begin to decline. There is nothing new or remarkable in this statement. If it were not so, and if with fresh applications of doses of labour and capital, equal returns could be obtained from the same plot of land, the whole amount of wheat or any other produce, necessary for the needs of a country could have been raised from only one farm or plot! As it is, we know that after some time every cultivator, if he wants to grow more produce, has to bring under cultivation additional plots of land. It will be remembered that this was also the case with our cloth merchant when he wanted to make his small shop yield him profits proportionate to the expenditure of labour and capital. It proved impossible in his case, and it must prove difficult in the case of the cultivator also.

But the law, as stated by Marshall, contains two significant phrases. The first is "in general", and the second is "unless it happens to coincide with an improvement in the arts of agriculture." These two phrases require elucidation. It often happens that the plot of land available for cultivation is quite a big one, say one hundred acres; while the doses of labour and capital which can be conveniently applied by a cultivator in a particular year are so inadequate that only about 10 acres can be properly cultivated. This means that the proportion between land, labour and capital is not ideal. Obviously, the yield in this case will not be as much as could be if it were possible to apply more doses of labour and capital, or, in simpler words, invest more money in the business. If in the succeeding years it becomes possible to invest as much money as this plot of land really requires, the yield from it per dose of labour and capital will be much greater than what it was in the preceding year. The returns per dose will be increasing.

The Optimum Point of Production. Let us suppose that the amount of money spent in the second year of cultivation of the 100 acre plot was exactly as much as the plot really needed. This would then be an ideal combination of land, labour and capital. But if in the year the cultivator invests still more money without increasing the area of the plot, the proportion of the various factors will again not remain ideal, and the yield per dose will begin to diminish. We may say, then, that, as in the case of population there is an optimum point, so that any increase above or a decrease below it removes population from the ideal point, in the same way there is an optimum point in agriculture and in every other productive enterprise, at which the proportion of various factors of production is ideal. In the case under consideration, the proportion of the factors in the second year of

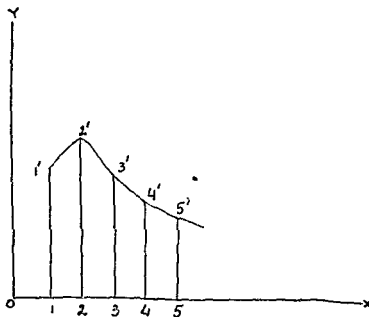
cultivation was ideal. The yield per dose was greatest at that time. In the preceding and succeeding years the yield per dose was less. As compared to the yield during the first year that in the next was increasing but as compared to that in the second year the yield in the third year was diminishing. So there may be circumstances when a further application of doses of labour and capital may not diminish, but actually increase, the yield per dose. This, however, can last only for a short time. When the proportion becomes ideal, but still labour and capital continue to be increased, diminishing returns must ultimately begin to operate. That is why Marshall uses the phrase "in general".

The other phrase which requires elucidation is "unless it happens to coincide with an improvement in the arts of agriculture". It means that yield from land is determined to a large extent by the methods that are adopted in its cultivation. If methods are primitive, land will begin to give, in course of time, diminishing returns. But if after some time primitive methods are given up and improved methods are adopted in their place the same plots of land which under the previous system yielded diminishing returns will begin to yield constant, even increasing return after the application of fresh doses of labour and capital.

Some thing like this can happen in India where primitive methods of cultivation are still largely in force. If the same plots of land are more intensively cultivated, better implements are used, a careful selection of seed is made, and the requisite amount of manure is given, it is very likely that the yield may not only diminish, but may actually increase per unit of labour and capital. That is to say, they may begin to yield increasing returns. After explaining the two conditions mentioned by Marshall it will be better if the law as stated by him above, with the provisions unexplained, is restated in his own words after the qualifying phrases have been removed —

"Although an improvement in the arts of agriculture may raise the rate of return which land generally affords to any given amount of capital and labour; and although the capital and labour already applied to any piece of land may have been so inadequate for the development of its full powers, that some further expenditure on it even with the existing arts of agriculture, would give a more than proportionate return, yet these conditions are rare in an old country; and except when they are present, the application of increased capital and labour to land will add a less than proportionate amount to the produce raised, unless there be meanwhile an increase in the skill of the individual cultivator. Secondly, whatever may be the future development of the arts of agriculture, a continued increase in the application of capital and labour to land must ultimately result in a diminution of the extra produce which can be obtained by a given extra amount of capital and labour",

Diagrammatic representation of Diminishing returns. It has become customary to explain the tendency of diminishing returns also by means of a diagram. The one given below may serve the purpose. Let us measure the doses of labour and capital along OX and the yield or return along OY.



When the first dose of labour and capital is applied, the yield is measured by 1, 1'; the yield of the second dose is 2, 2', which is greater than that of the first dose. This means that, not diminishing, but increasing returns are operating. But with the application of the third dose, yield begins to diminish, and this tendency continues as we go on increasing the doses in succession. That of the 4th is less than that of the third and so on. If we join the points 1, 2, 3, 4, 5, we get a curve which we may call the curve of returns.

We can also illustrate the law by giving imaginary figures of yield. Thus we may say that —

One dose of labour and capital	yields	10	mds.	of	wheat.
Two doses " " " "	yield	25	mds.	"	"
Three " " " "	yield	33	mds.	"	"
Four " " " "	yield	39	mds.	"	"
Five " " " "	yield	43	mds.	"	"

In this illustration likewise, we find that whereas the first dose yielded 10 mds the second dose yielded 15 mds. The yield of the second dose can be obtained by subtracting the yield of the first dose from the combined yield of the first and second

dose ($25-10=15$). So the additional yield of the second dose is 15. After this, returns begin to diminish. The yield of the 3rd dose is 8 i.e. ($33-25=8$); that of the 4th is 6 i.e. ($39-33=6$); and that of the 5th is 4 i.e. ($43-39=4$). In this way, although the total yield goes on increasing with the application of further doses of labour and capital, that of each succeeding dose goes on diminishing after the second dose. For a very brief period the returns showed increasing tendency, from 10 mds. per dose the yield increased to 15 mds. This meant that previous to the application of this dose, land was really undercultivated, and that with the application of the second dose the combination of the various factors of production became ideal. After this, every further dose of labour and capital did not add as much as the immediately preceding one. After the application of the second dose the optimum point of production should be regarded as having been reached.

This, then, is the diagrammatic representation of diminishing returns as applied to land. There are a few points which need a little more discussion and further elucidation. The first is that we compare the *additional* yield of one dose of labour and capital with that of the immediately preceding and the immediately succeeding one, in order to determine whether land is yielding increasing or diminishing returns, and not the *average* yield. In the second place, for determination of the tendency towards increasing or diminishing returns, we take into consideration only *yield*, not *price*. That even with diminishing yield per dose, cultivators find it worth while to continue the application of fresh doses, is only due to the fact that the price of the produce raised is such that the expenses (money) per dose are sufficiently covered by the price per maund. Sometimes, it may even happen that with increasing returns the cultivator may lose, if the price of his produce falls in the market, and with diminishing returns he may gain, if the price of his produce rises. If he does not grow crops for the purpose of selling in the market, he will not be affected by price. Under such conditions he will only compare the value of his dose and of the yield of the dose. As long as successive doses go on yielding even slightly more than what they cost it is worth while for the cultivator to continue the application of the doses. But when a dose yields just enough to cover its cost and not more, the cultivator will not after that, apply any further dose. The dose which he only just decides to apply is called the *marginal dose*. But if conditions change either as regards the cost of the dose or as regards the price of the yield, the marginal dose may no longer remain marginal, but may begin to yield a surplus. So we may say that marginal dose is not necessarily the last in time.

Diminishing returns as applied to urban land The tendency to diminishing return is observed in all productive undertakings, agricultural or non-agricultural. In the case of land used for building purposes, the tendency is equally marked. If a plot of land is used for building purposes, the first story of the house

requires an expenditure of a certain sum of money represented by a number of doses of labour and capital, or in other words, a sum of money to be distributed among various factors of production necessary for the purpose. The first storey means some expense, and yields a return, either of comfort or of money in the form of rent. The second storey will mean a lesser expense, as the amount spent in digging and filling up the foundation will not be needed for the construction of the second story. The return from it will not be less than that from the first, if we suppose that the rooms in the second are the same in number and quality as in the first storey. (The system of court yard in a house is particularly Indian and is not found in other countries). Consequently, the return from the second storey will be proportionately more than from the first, and so it may be called increasing. With the addition of the third storey the case does not remain so simple. Although no expense is necessary over foundation, and the area and number of rooms are exactly the same as in the first and the second storeys, the cost of construction becomes higher as it takes a longer time to carry building materials so high up. Labourers and masons also demand a slightly higher wage as there is a greater risk in working at such a height. On the other hand, the third storey is not particularly comfortable to live in. Greater exertion is necessary every time in going up and coming down. So there is a diminution of comfort or a reduction in rent. The net returns, therefore, from the third storey may be either constant or slightly diminishing. But with the addition of the fourth storey the case again becomes clear. It will certainly mean a greater expense and a smaller income of comfort or money. The returns will clearly begin to diminish.

In spite of this disadvantage, it may be found less costly to add a further storey to an already large number of storeys, than to acquire more land if land is not available, or is available at a very high price. The owner of the building compares the advantages and disadvantages of constructing an additional storey with those of acquiring a new plot of land. In spite of the operation of diminishing returns, he may still find it worth while to spend his money in the construction of an additional storey, if the amount of rent that he receives from his tenants, more than covers the interest and depreciation on the capital that he will have to invest. But, ultimately, a stage is reached when, however strong the foundations, it becomes unprofitable, and even risky, to add a further storey to the building, and acquisition of further land becomes unavoidable if the extension of business is decided upon. So we find that diminishing returns are as much applicable to urban land as they are to agricultural land.

Diminishing returns as applied to fisheries. Opinions differ as to the applicability of the tendency to diminishing returns in the case of fisheries. Some economists are of opinion that fish

are very prolific and they multiply so rapidly that the diminution in their number is not perceptible. According to them diminishing returns do not apply to fishing. The doses of labour and capital may continue to be multiplied to any extent, but there will be no diminution in the returns. This view does not seem to be correct. It appears that as in the case of some prairie lands of America even to-day, fishing is still subject to increasing returns in certain waters, and that the requisite amount of labour and capital has not yet been applied. When still more doses are applied, it appears certain that fishing also, will become subject to diminishing returns.

Other economists are of opinion that fishing industry is also as much subject to diminishing returns as any other. Their number perceptibly falls off if fishing is resorted to at the time when fish lay eggs. This has been especially marked in the case of oysters.

Diminishing returns as applied to mines. Mines differ from agricultural and urban land, in as much as the latter are indestructible while the former are exhaustible. A plot of land used for agricultural purposes will continue to perform its function for an unlimited number of years, if proper care continues to be taken for maintaining its powers. Even if no manure is given to a plot of land, but it is left uncultivated for a year or two, it recuperates its properties very soon. An urban plot of land continues to exist without any trouble or difficulty on the part of any one. Mines differ from fisheries because, although they are not indestructible, they reproduce themselves so quickly that no perceptible diminution has been observed to take place. Mines are neither indestructible nor reproducible during any definitely known period. When once exhausted, they may take thousands or over millions of years to fill up again, and even then it cannot be said with certainty what material they may offer to man, and in what form after this enormous period. Diminishing returns, therefore, cannot be said to operate in their case, in the same sense as in the case of others. As Marshall says. "The yield of land is different from the land itself, but there is no difference between a mine and the yield of a mine".

It is no doubt true that the deeper a mine goes the more difficult it becomes to work it, till a stage is reached when it is not worth while to work it at all; and so in this sense diminishing returns may be said to come into operation in the case of a mine also after a certain depth is reached; yet the explanation is not satisfactory in view of the remarks made above, and diminishing returns cannot be said to apply in the case of mines.

Diminishing returns as applied to manufactures If a certain industrialist starts an industry with an initial capital of, say, 5 lakhs of rupees, he will have to apportion this amount among the various factors of production. Suppose he invests Rs. 50,000 in the purchase of land. Over this land he erects a factory

building, costing another Rs. 50,000. The remaining amount, Rs. 4,00,000, he apportions among the remaining factors of production; and so he starts his business. After some time, if his business succeeds, he would like to invest a further sum of money and still further increase the scale.

At this stage an essential difference between manufacturing and agricultural industry should be pointed out and explained. More land per unit of labour and capital is essential in agricultural industry than in manufacturing industry. Over an area of say 100 acres of agricultural land, not more than a few lakhs of rupees can be invested in labour and capital but several crores of rupees can be so invested if this area is used for manufacturing purposes; that is to say, for construction of factory buildings and for fixing engines, machines and other accessories. Consequently, if, reverting to our illustration, the manufacturer wants to invest more money in his business, he can do so easily without feeling any necessity at all to increase the area of land which he has already acquired. He can go on investing large sums of money in his business without feeling called upon to acquire more land. But although he can go on doing this for a considerable period—for a much greater period than in the case of agriculture—even then, there must be a certain limit. After some time, even though it may be a long one, he will begin to feel the necessity for more land. If he does not acquire more of it, and still persists in investing more labour and capital, even his business will begin to feel the effect of diminishing returns. If the ideal distribution of resources in agricultural industry is something like this: land (1) labour (4) capital (20), that for manufacturing industry will be something like this: land (1) labour (100) capital (1,000). This shows that a far greater number of doses of labour and capital per unit of land can be applied in manufacturing industry than in agricultural industry, and, consequently, diminishing returns begin to operate in the case of agriculture much sooner than in the case of manufactures. But, however late the operation may begin, begin it must. This point is of very great practical importance and will be repeated again.

The law of constant returns. When the returns per unit neither increase nor decrease with an increase in the doses of labour and capital but remain constant the tendency is known by the name of the law of constant returns.

When the tendency to increasing returns in any industrial undertaking ceases to operate, while the tendency to diminishing returns has not actually asserted itself, there is a border land wide enough for the operation of the tendency known as constant returns. An increase in investment neither increases the yield per dose, nor does it diminish it, but the returns per unit remain proportional to the increase in the investment. This is one aspect of the tendency of constant returns. But there is also another

There are several manufacturing industries which use a very large amount of raw material. With the increase in the size of any one of these industries, there must be an economy per unit of labour and capital as the industry is subject to increasing returns. But the material which it uses, being an agricultural product, cannot be got at the old price when the amount demanded increases very greatly. Being an agricultural commodity it must be subject to the tendency of diminishing returns. The case of such an industry must be very interesting. On the one hand, being a manufactured article, and consequently, subject to increasing returns, the yield per unit of labour shows a tendency to increase; but the fact that a large amount of raw material is necessary for the production of the article, the industry shows a tendency to diminishing returns. The net result of these opposing tendencies is that the return per dose is neither more nor less than before, but remains practically constant.

From our discussion of the laws of productivity we learn that it is not always equally profitable to increase the scale of any business, whatever its nature. If it is manufacturing, it is profitable to go on increasing its scale for a considerable time, because, manufacturing industry is mostly subject to increasing returns. Any increase in the demand for manufactured articles will, therefore, be welcome not only to the persons engaged in the industry, but also to the whole nation. If, however, there is an increase in the demand for agricultural articles and for this reason the size of the agricultural industry has to be enlarged, the returns, will begin to diminish very soon, especially if the country is an old one, and price of the article will begin to rise. So, although this increase in the demand will be welcomed by those who are engaged in the industry, it will not be looked upon with equanimity by those interested in the real well being of the country as a whole. Diminishing return from agricultural land is a symptom of the unwillingness of land to yield the crop that is raised. It measures its resistance to man's efforts for extracting more and more. So, while an increase in the demand for manufactured articles ultimately results in the price of the commodity becoming cheaper, an increase in the demand for agricultural commodities ends with a rise in prices.

Let us compare in this connection the case of England with that of India. England is a manufacturing country, while India is predominantly agricultural; England's industry is subject to increasing returns, while that of India is subject to diminishing returns. An increase in the demand for article produced in England ultimately results in the cheapening of those articles, thus benefitting not only the manufacturers on account of increased sales, but also the whole nation. On the other hand, any increase in the demand for articles grown in India, ultimately results in the enhancing of prices, so that although middle men may benefit by this rise, or to some extent even the growers here and there, yet the vast body of consumers suffer in consequence of the high prices. And when we remember that every

year we are exhausting our natural resources in land, forest, and mines, the seriousness of the problem becomes still greater.

Factors affecting the operation of the law. When agricultural land in a country begins to yield diminishing returns, it usually means that the powers of the soil have begun to show signs of exhaustion. At this stage it is important to discover those factors which may retard the operation of diminishing returns. These factors should be only those which affect *the yield of the land* and not the *price of the yield*. Our purpose is to discover those factors which can increase the amount of the yield, leaving its price to take care of itself.

Improvement in the general art of cultivation. This important factor plays a very prominent part in neutralising the effects of diminishing returns. When land begins to yield diminishing returns, it is high time to devise methods so that this aging may not become very prominent. This is the proper time for launching schemes of rejuvenation. For this it will be necessary to modify the system of cultivation in the required direction. Agriculture in India has been carried on since times immemorial, according to the same old system which is of a very primitive nature. The Indian cultivator is industrious and intelligent as far as his own business is concerned; but he has become entirely out of touch with the vast improvements that have been made in the system of cultivation during the last 200 years. Mrs. Saint Nihal Singh in her beautiful small book, *"The Improvement of Indian Agriculture"* has contrasted the conditions of Indian agriculture and Indian agriculturist with American agriculture and American agriculturist. We need not apologise to the reader for giving a rather lengthy extract from the first chapter of this book.

"Temporarily transport an Indian cultivator from his small, worn out plot of ground, when, exposed to the blistering rays of the tropical sun, he toils and moils from early morn until close of day, subsisting on poor inadequate fare and turning in a miserable hovel, to the land where farming is a profitable pastime, and he would open his eyes wide. He would find that in this country—the United States of America—the agriculturist is king—stiff necked, independent, wealthy, respected, catered to by all classes of people—commands a big bank balance; lives in a home fitted with many conveniences which even the palaces of the Hindu princes lack, rides around towns in motor cars; his wife and daughters attend gay social functions, enjoy card and theatre parties one or two nights a week. To look at an American farmer the man from Hindustan would conclude that he is merely riding about, while he, the Indian cultivator is ploughing his land. When he desires to irrigate his field, all that he does is to touch a button and electricity pumps the water for him from a deep artesian well, doing what is an almost unbearable task to his Indian fellow worker. Well may the Indian wonder whether the American really is working for a living or merely is having a good time".

Under the present system of cultivation the surface of the soil has only been scratched to the depth of a few inches. There is no deep ploughing as the ploughs are old fashioned and bullocks are weak. All other operations likewise are carried on in a primitive way with the help of primitive implements and tools. If this method of cultivation is altered to a possible extent the field from the land will increase very much, and the operation of diminishing returns will be held in check. A careful selection of seed has already resulted in increasing the yield of the Indian land. Slightly more careful manuring, better and timely watering, weeding out of useless plants and insects, all these factors have proved of great benefit to Indian agriculture during the short time that they have been brought into use. It means that all is not lost as yet, and that the Indian land is still highly responsive to the more considerate methods of cultivation. It has also been observed that certain plots of land which had begun to yield diminishing returns when under one crop, have begun to yield much better returns under a different crop. It means that our knowledge of agricultural chemistry is not very sound. When researches of this kind are broadcast among agriculturists, either by means of public lectures or by means of radios, highly beneficial results will follow. In this way it is possible not only to check the operation of diminishing returns, but, perhaps, not very difficult even to make the land yield increasing returns under certain crops and in certain areas.

THE SCALE OF PRODUCTION.

Advantages of large scale production. Advantages of large scale production consist (a) in buying (b) in producing and (c) in selling

(a) An organiser has to buy (i) Raw materials (ii) Land (iii) Labour and (iv) Capital.

(i) A large scale producer has a great advantage in the purchase of raw materials. As he buys in a lot, he can settle better terms with the producers of raw materials. In the matter of their transportation from the place of production to the factory, he can settle advantageous terms with railway lines and shipping companies, by reserving full wagons. All other expenses incidental to the purchase of raw materials are also reduced, as he bargains on wholesale and mass rates

(ii) He has also to take on rent either a large area of land, or a big factory building. In any case, because he is a big customer and wants a large area or a big building, the owner of land or building will naturally show greater consideration to him for this reason alone, and so, as a matter of course, he will get better terms from them.

(iii) He also requires the services of a large number of labourers. As his business is on a large scale, and he has carried division of labour and specialisation of machinery to the furthest

possible limit, he needs the services of different grades and classes of labourers. He can employ even women and children because he requires labour for a large variety of work. Being himself a man of substance, and his business also being on quite a big scale, labourers are at once assured of continuous employment, not only for themselves, but also for their wives and children. He also offers all of them those advantages and amenities which only a big business man can do. For all these reasons he can employ them on comparatively favourable terms.

(iv) He also requires a certain amount of capital, if his own contribution does not suffice. As the sum involved is generally large and he has a good security to offer, he can borrow on easier terms.

Thus in the matter of buying of goods or services, the proprietor of a business, run on a large scale, has many advantages.

(b) The work of production has now-a-days become highly complex, and it has been reduced to a perfect system. The work is divided into a number of departments all being run according to a definite plan. There is, for example, the engine department, the manufacturing department, the packing department, the accounts department and the utilisation department.

If the business is on a large scale, a more powerful engine will have to be installed; but the cost of working and supervising it will not increase in proportion to the increase in its power and efficiency. So the expenses per unit of power in a large business are lower than in a small one. A qualified Engineer can look after a superior power engine at the same cost as he can an engine of a low power.

The most important part of the whole work is carried on in the manufacturing department, where the commodity is actually manufactured. It is here that we find division of labour and specialisation of machinery carried to the utmost limit. Each labourer is assigned a task which he is best qualified to perform. His work is looked after by a foreman who has no other work except to see that labourers under his charge work properly and do not lack any thing. Machines being of a specialised type can be kept constantly at work during factory hours. Only the best machines are purchased and the most up-to-date methods of production are employed.

The principle of substitution remains constantly in operation, and the moment it is discovered that a particular machine can be substituted for a number of labourers in performing a part of the work, the required change is introduced at once. Thus every thing that money can do with a view to efficient and cheap production is not left unaccomplished.

Packing of articles, after they have been manufactured, has become an art in recent times. A well packed article is preferred to one that is not well packed. Some articles are purchased

mainly because of their neat and decent appearance. A big business can afford to keep whole time expert packers. This is not within the competence of a small scale business.

Then comes the accounts department. The up-to-date methods of accounts are adopted in the accounts department of a big business. The work is entrusted to highly paid accountants who are very efficient in the discharge of their duties, and generally help in the smooth running of the business. Totalling machines are in use and the work of correspondence is so efficient that not a single letter remains unacknowledged the first day it is received; also the execution of orders is prompt and leaves nothing to be desired.

The utilisation department is a speciality of big business. In the process of manufacturing, some amount of waste material is left behind. In small establishments it is thrown away and is actually wasted. Not so, however, in a big establishment. Here, after a number of experiments, means are devised to utilise this waste product either in making a subsidiary article or in other ways. This is a great achievement and brings large gains to the business.

(c) As in the matter of buying and manufacturing, so in that of selling, a large business has many advantages as compared to a small business. Selling of a finished article has, in modern times, become very difficult on account of the growing competition among different establishments in the same country and also among different countries of the world. A large business can secure better terms from railways and cargo ships in the matter of transportation costs. The railways and shipping companies do not mind reducing freights, where large consignments of goods are involved. Commercial travellers and selling agents are employed and a good commission is offered for really efficient service. The best talent is accordingly secured and the sales increase proportionately. But the greatest advantage in selling which is derived by a large scale business is in the matter of advertisement. Large sums of money are spent over advertising goods. The utility of advertisement has become very great in recent times. It creates demand and, therefore, encourages sale. The services of best advertisement writers, who are always very expert psychologists, are secured and the market for the commodity is thereby generally extended, sometimes covering the whole world.

Advantages of small scale production The advantages attributed to large scale production may be regarded as the disadvantages of production on a small scale. But there are some advantages also of small scale production which may correspondingly be regarded as the disadvantages of production on a large scale. The first is the element of personal supervision and interest of the proprietor of the business in the affairs of the concern. This personal touch is entirely absent in the case of a large scale business. The proprietor of a big business does not

know his employees even by appearance, much less by name. He appoints a number of departmental managers and assistant managers, who remain in touch, but the proprietor himself knows very little of these details. There is, consequently, no contact between the actual employer and his employees. Certain evils appear in different departments of the concern without the proprietor knowing anything at all. The managers and assistant managers are, no doubt, experts in their own line, and also discharge their duties very efficiently, but they have not that personal interest which only the proprietor can have. As long as they continue to receive their salaries, and the business goes tolerably well, they are perfectly satisfied. They do not hope to get higher salaries, even if the profits of the business increase; nor are they afraid of losing any part of their income if the profits are not large enough or even not at all.

If any thing goes wrong some where it is difficult to hold anyone responsible for the evil. The business being so vast, the various departments so interdependent and personal contacts being so few in every branch of the concern, it becomes extremely difficult to lay one's finger definitely anywhere. This results in divided responsibility, which is often the cause of some of the major troubles resulting sometimes in a great loss to the business. This is not possible in a small scale establishment, where the master's eye is everywhere. On account of his personal contact with different departments and every one of his employees, there is no scope for any misunderstanding. If there is anything wrong anywhere the proprietor comes to know of it at once and measures are adopted for setting it right.

Just as his contact with the small number of his employees is intimate, he is also in very close touch with the consumers of his articles. He knows their tastes and requirements and can cater to their individual demands. As his production is not *enmasse*, he can produce articles of different designs conforming to the varying tastes of different classes of people. Consumers cannot get the facility of having their individual idiosyncracies satisfied by a large scale business. In a big business, while there are very great profits, there are also very great losses. Moreover, ever since the development of joint stock system of production, the function of organisation or management has become quite separate from that of enterprise. Those who undertake the risk of running a big business are usually not in close touch with the affairs of the company except through their elected representatives. Under this form of business there is a greater likelihood of losses than in other forms. In a small scale business this sort of risk is minimised.

INDUSTRIAL ORGANISATION

There are three main types of industrial organisation; which means that a business can be run in any of the three forms explained below.—

(a) **Private concern.** The most common and prevailing type of business is the private concern. A person invests a certain amount of his capital and, if necessary, borrows some capital from a money lender or a bank, either at the very start of his business, or later on, when need arises. He hires a shop or a building, and also the required quantity of labour, and then commences work. He is both the manager and the enterpriser; and so himself manages the business and is also solely responsible for its profit and loss. A very large number of businesses in the world are of this nature. Most of the shops that we see every where in a city or a town are run on this basis. In India this type of business is prevalent everywhere and is, of great importance to the country as compared to other forms.

Cultivation of land is carried on by the cultivator in his personal capacity. He takes a plot of land on rent from a *zamindar*, if he has no land of his own. He invests either his own capital in the purchase of bullocks, implements and tools, seeds and manure etc., or, as is usually the case in this country, borrows money from some one in the village. He calls some labourers at the time of sowing, watering, weeding and reaping, but also himself works along with the labourers. He manages his little farm himself, as best as he can, and is also responsible for any profit or loss.

A business carried as a private concern, is not necessarily always on a small scale. There are persons who have a command over large resources, and can invest large amounts of capital in an undertaking. Its scale is sometimes very large and it is classed under very big business. A person may invest several lakhs of rupees in a mill, sugar or cotton or any other, and may appoint managers, assistant managers, and other staff to look after it; or he may, if he has the capacity and the knowledge, manage it himself. In any case, it is his private concern, and he is alone responsible for its profit and loss. Many mills in India and elsewhere are run as private concerns on a fairly big scale, reaping all the advantages that are attributed to a large scale business. There are also numerous big shops in which several lakhs of rupees are invested by one person alone. Even in the domain of agriculture, some people have begun to invest large sums of money of their own in starting large farms, where up-to-date machinery is used and fields are irrigated by means of tube wells run by hydro-electricity.

Sometimes, private concerns assume very large dimensions and begin to be counted among the largest business establishments in the country, or even in the world. Such cases, however are rare. At a certain stage, even rich men stand in need of supplementing their own resources with outside capital. This gives them a much needed help, and also ensures the keeping of regular accounts and their yearly checking. Tatas in India, Krupps in Germany, Morrisons in England, and a number of millionaires in America like Andrew Carnegie, John D. Rockefeller, Henry Ford

and J. P. Morgan, started their business as private concerns and carried them to very large dimensions with their own capital and ability but they too, at one time or the other, felt necessity of either making their concerns joint stock enterprises, or formally or informally accepted a few partners. None the less we say that between 70 and 75% of business in the world are run as private concerns. In India this percentage may be as high as 90%.

(b) **Partnership Concerns.** When a person who has started a business in his personal capacity needs some assistance either in supervising the business or in financing it, he takes up a partner either on a 50% basis or higher or lower as the situation demands. The partner contributes his own quota of capital, undertakes some supervising work and assumes a proportional responsibility in the matter of profit or loss. Partnership concerns, however, are not very popular unless the partners belong to the same family or class. This form of industrial organisation is not very different in its characteristics from the first type discussed above. It does not possess the advantages of the joint stock type of business, and though it may be regarded as an improvement over the private single type in some respect, it has some serious disadvantages. For example, there is always a likelihood of the several partners falling out among themselves, thus causing injury to the business. In India this type of business is not very popular.

(c) **Joint stock concern.** This is the latest type of industrial organization that has now become highly popular in those countries where large scale business has taken firm roots. As the name implies, it is a business started by number of people who have joined together their respective stock or capital. If this were its only peculiarity, there would not be much difference between this type and the second type, except that in the latter the number of partners is small, while in the former it is very large. But the real distinguishing measure of this is that a person may become a partner in the business to howsoever small an extent, but this responsibility will remain only in proportion to his interest. An illustration will make this point more clear. Suppose a person starts his business with a capital of Rs 10,000 and in the course of this business incurs a debt of Rs 5,000. If after sometime he suffers a great loss and decides to close his business, he will alone be responsible for the payment of the whole debt incurred during the course of the business, and his creditors have a right to realise their dues from him by every legal means at their disposal. But if he had a partner whose share in the business was one fourth, the creditors would have the right of realising their dues either from one partner, or from the other, or from both, in any way they pleased. The fact that the other was only a 25 p c. partner in the business would not save him from the responsibility of the entire debts of the concern. If a person were only a 1% partner, even then he might be held responsible for the payment of the full debt if the creditors so please.

This would be a great handicap to a small partner, and for this reason ordinary partnership did not acquire any popularity.

In the joint stock type of business under discussion, this handicap and disadvantage has been removed by definitely laying down that a partner in a joint stock concern can be held responsible for the liabilities of the business only to the extent of his financial interest in the concern. If a person invests only Rs. 1,000 in a joint stock concern whose total capital is Rs 50 lakhs; and when it is finally closed it is discovered that it has to meet liabilities of several lakhs of rupees after the utilisation of all its assets. No one, however, can ask the person who has invested only Rs 1,000 in the business, to pay any thing more than that. If he has already paid his share to the full he cannot be asked to pay a single pice more. But if out of Rs. 1,000, he has paid only Rs. 500, then he can be asked to pay the remaining amount, if any need arises, but not a pie more than that. His liability is *limited*, not unlimited as in the case of the first two types of businesses.

This is a very great improvement over the other two types. Not every man possesses the capacity, knowledge and opportunity to look into the minute details of a business, but there are many who feel an inner urge to become partners in a concern without running more than a definite amount of risk. For such people a joint stock concern affords opportunity for becoming its sleeping partners.

A few details in connection with the joint stock type of organisation may be of some interest. A joint stock company can be started when an application to this effect is made by 7 members to a Government Officer, who is especially appointed to look after such applications, and is known as the Registrar of Joint Stock Companies. There are certain items which have to be mentioned clearly, for example, the amount of capital with which the company is going to be started, the value of each share, the place where the business is going to be started, and the rules and regulations framed for the purpose of guiding and controlling the affairs of the company called the Articles of Association. When papers containing all this information are filed with the Registrar, the company is registered as a limited liability company, which means, as explained above, that the liability of each share holder is limited to the extent and amount of the shares held by him.

The capital of a company is divided into a number of shares of convenient amount. If the capital of the company is Rs 5,00,000 it may be divided into 50,000 shares of Rs. 10 each, or as considered advisable. These shares are of different classes. The purpose of the company is to induce the general public to invest its money in the business; but different people possess different views in the matter. There are some who want a safe investment, though the rate of interest may be low. There are

others who want a likelihood of greater gain, even though there may be an element of risk. Keeping all these considerations in mind, those who are in charge of starting the company, place before the public several alternative ways of investment, which might meet the requirements of different classes of people, possessing different mentalities.

Firstly, there are shares that are called debentures. They carry a small rate of interest but the debenture holders have a prior claim not only upon the profits of the company but also upon its capital for the payment of this definite amount of interest. If the company closes its business, the debenture holders have a prior right regarding the payment of the amount of their debentures out of the assets of the company. Debenture holders are really not shareholders of the company, but its creditors, with the same right as those of the latter.

Then there are preference shares. They also guarantee the holder a certain rate of interest, which is higher than that on debentures, but is payable only out of the profits of the company not even out of capital, as in the case of debentures. If, in a particular year, the company does not make any profit, and, consequently, is not in a position to pay interest on preference shares, there are two possibilities. Either preference shareholders lose this year's interest for good. In such a case preference shares are called non-cumulative preference shares, which means that the promised interest does not accumulate from year to year but lapses if it is not paid any year due to the fact that the company did not earn any profit during the period. In the other case shareholders do not lose interest even if it is not earned and paid in any year. If profits are earned during the next year, or in any future year, the accumulated interest on the preference shares has to be paid first, before any profit is distributed to other shareholders. Such preference shares are called cumulative preference shares.

Then come ordinary shares. These shares do not carry interest; but whatever is left after interest has been paid to debenture holders or preference shareholders, both cumulative and non-cumulative, is divided among ordinary shareholders as profit, in the form of dividends. These ordinary shareholders are therefore, the real undertakers of risk. Their earnings consist not so much of interest as of profit.

Sometimes there is another class of shares called deferred shares. They are kept in reserve for themselves by the promoters of the company. When it is so, ordinary shares partake of the nature of preference shares. They carry a fixed rate of interest or profit but it is payable only after all other claims have been met. The balance is distributed among deferred shareholders as profit.

In this way by offering different kinds of shares, different types of people are induced to subscribe to the capital of a company. When a large number of people pool their resources

the total amount increases to a big figure. Many undertakings, which could never be started under private or partnership concern, can be started under joint stock type. Management of the company is carried on by elected representatives of shareholders who are called directors; one of their qualifications being the holding in their own names quite a large number of shares, so that their interest in the business and in its success may become evident. The directors are elected by shareholders in a general meeting which is held every year. The general body of shareholders is the ultimate authority in all matters, but it cannot take any active interest in the affairs of the company and the directors really do what they like. If the right type of directors are available, and have been elected by the general body of shareholders the business is expected to prosper fairly well. If, however, the choice has not been very carefully made, the directors usually prove the cause of the ruin of the business. The ordinary shareholders find it very difficult to take any active interest except attending the ordinary annual meeting and saying what occurs to them at the moment. For the rest, they act according to the wishes of the directors. This is the greatest weakness of the joint stock type of business.

Large and small scale farming. In the foregoing pages the advantages of large scale production have been discussed, and different forms of industrial organisations have been explained. Production on a large scale, does not mean merely *manufacture* on a large scale. Manufacture is only a small part of production. The latter includes not only manufacture but also farming, fishing, mining, shopping, transporting etc. It may be said in a general way, that the advantages of large scale manufacture are also, to a very great extent, the advantages of a large scale farming, fishing, mining, shopping, and transporting etc. There is, however, a great difference in details, and if space permitted, the special problems connected with all these branches of production might have been discussed. This not being possible, we confine ourselves to a special discussion of large and small scale farming with special reference to India.

Large scale farming. Different people understand large and small farms differently. In new countries, like America, Australia and Canada, a farm of a few hundred acres is considered to be a small farm. The land in these countries is extensive, and is so easily available that an area of a few hundred acres is not regarded as a large one. As a matter of fact, land in such countries is more of the nature of free goods than economic goods. Moreover, capital also being available without much difficulty, it is not difficult to bring under cultivation a large farm of several thousand acres. In old countries like England, Germany and France, a farm of a thousand acres is considered to be quite a big farm, while in older country like India, where sub-division and fragmentation of holdings has been carried to the furthest possible limit, a farm of even a few hundred acres is regarded as quite big one.

In this connection we would only discuss the position of India. Here a farm of a few hundred acres is regarded as a fairly big farm, while a holding of between 5 to 10 acres of fertile and well irrigated land is regarded as a fair size for an average holding. So, when we use the phrase large scale farming in connection with India, we should be taken to mean farming on a land with an area of a few hundred acres ; while small scale farming would mean, in our sense, farming of a holding of between 5 to 10 acres of land. -

It may be mentioned that there are not many farms even as big as a few hundred acres in area, while farms of over 1,000 acres are fewer indeed. Those numerous holdings which are of an uneconomic size and character would not be taken into consideration. It would be wrong to call them small farms and their cultivation small scale farming. The sooner the cultivation of such plots is given up, the better it would be in the interest of the country and of those who are engaged in such cultivation.

Advantages of large scale farming. Large scale farming takes for granted a command over that amount of capital which is necessary to fully exploit the possibilities of the plot of land included in the farms. It is, therefore, necessary to employ a number of machines to perform those operations which are performed by labourers in a small farm. Better type of ploughs which can plough the land to a greater depth shall have to be purchased in order to utilise those chemical ingredients of the soil which have remained so far untouched on account of mere surface ploughing. Tractors, seed drills, threshing and reaping machines, and machines for cutting fodder, will all have to be installed in the farm in order to make production more economical. One or more tube wells should be sunk for the purpose of irrigation. Motor trucks will be necessary to transport agricultural produce expeditiously to the nearest market. In short, all those types of machines, implements and tools which have been recommended for use in India by those agricultural experts who are intimately in touch with the peculiar conditions prevailing in India, should be employed. When this is done a great deal of economy will have been effected and the yield of the crop will become larger.

In addition to the large number of economies introduced in the method of production resulting in the increase of the yield, large scale farming also makes it possible to fetch a better price for the yield. The produce can be sent to the best market after finding out the rates prevailing at different places. It will not be necessary in this case, as it is in that of a small cultivator, to sell the produce in the village or in any specified area. With the knowledge of markets, better price can be obtained. The produce can also be stocked for sometime, if it is surmised that after a little while prices will rise. This is not possible in the case of a small farmer. Being financially very hard up he has to sell his crop as soon as it is harvested, irrespective of the price prevailing in the market at the time

Another very great advantage of large scale farming is that it makes it possible to carry on certain subsidiary industries of an agricultural character with greater ease and economy. Dairy farming, for example, can be carried on easily and economically on a large farm. The growing of fodder for cattle is not at all difficult; there is enough accommodation on the farm for constructing cattle sheds; their droppings, both liquid and solid, can be used as manure; the milk or butter can be carried efficiently in farm trucks; calves when they develop into bullocks can be used on the farm for those purposes for which the application of mechanical power is not easy. In short, the best occasion for a successful dairy farm is only in conjunction with large scale farming of a general nature.

Then, there is poultry farming, a very profitable business, indeed, provided that a man feels inclined that way, and does not mind the false odium attached to it. The rearing of silk worms, and the keeping of bees, are also promising subsidiary industries which can be carried on a large farm without any great difficulty.

In the United Provinces at present, there is a growing tendency among well to do people to start farming on a large scale, either exclusively on their own lands, or after supplementing it with other rented plots in the immediate vicinity of their own. Sugar cane is the most favourite crop which is raised on such farms, but other crops are also taken up. It is yet too early to say to what extent large scale farms will succeed, but there is no reason why, if industry and skill and the requisite amount of capital are forthcoming, they should not succeed.

There are, however, certain disadvantages also of large scale farming, if introduced in India on anything like a general scale. India is a land of petty proprietors and cultivators. If a large farm is started anywhere, it means that a large area has to be acquired in one way or the other from petty proprietors or cultivators. A large farm, therefore, means the ejecting of a number of tenants from their holdings, because no plots are lying uncultivated anywhere. This means unemployment for those who are so turned out from those plots in which they had a life or permanent interest. If this displaced labour is soon absorbed in agriculture or in other industries, it will be quite good for all. But, unfortunately, it is not easy for these people to get fresh plots of land in their own village or in other villages; as everywhere land is in very great demand. Nor is it possible for them to be employed in other industries, for the simple reason that there are none.

Under these circumstances it is very doubtful whether farming on a large scale will do India any good, and whether even economic welfare of the country, as a whole, can increase in this way. If large scale farming is undertaken on reclaimed land, or if it is started by a number of cultivators on a co-operative or a collective basis, or if the displaced cultivators can get employment elsewhere without any loss of time, only then can we

recommend the adoption of large scale farming in our country. If that be not possible—and we are afraid it is not possible for sometime yet—we would very much like to be left alone with our small farms and farming on a small scale.

Advantages of small scale farming Large scale production, be it manufacturing or farming or anything else, requires a large amount of capital. Those who are rich can afford to start large scale manufacturing enterprises, or large scale farming, with their own or borrowed money. Manufacturing business can also be carried on a large scale under joint stock system; and even those who are not rich can join such a business in how-so-ever humble a capacity. But large scale farming has not yet developed on joint stock lines in India and other countries also. So those who have not much money of their own, and hence cannot easily borrow any great amount, are not in a position to start farming on a large scale. The small scale business, with certain necessary modifications and improvements, seems to be the type best suited to Indian conditions for a considerable time to come. It is therefore, really no use extolling the virtues of large scale manufacture and large scale farming, when we definitely know that for a considerable time to come, this sort of business, even if desirable, cannot be introduced in a very large part of India. It will be much more useful if modifications and improvements are made in small scale manufacture or farming in order to make them more beneficial and paying for those engaged in them.

Small scale farming is then very eminently suited to the conditions prevailing in India. The reader may be reminded that we have taken small scale farming to mean cultivation of between 5 to 10 acres of fertile, well irrigated and well situated plot of land. On such a plot it is quite easy for the cultivator to supervise and superintend the important operations himself, working all the while along with hired labour when necessary. The master's eye can remain every where. Our cultivators, however illiterate they may be understand very well the technique of cultivation and can give a very good account of themselves. They can very well control the operations on a compact area of between 5 to 10 acres, but if the area becomes larger they may not be able to efficiently manage and control it.

With small areas to control, the petty farmers can somehow arrange for necessary amount of capital. If, however, the area is larger, our cultivators cannot provide the adequate amount of capital. No one would lend them a large amount, as in the case of a failure of crops it would become impossible for the creditors to realise anything from them. On a small scale, implements and tools of an improved type can also be used, though not machinery and mechanical power. As a matter of fact, the employment of machinery and of mechanical power cannot do much good to the country in its present state, and also cannot be employed on any but a very small scale. If a cultivator introduces the improved plough and the improved hand implements and

tools; also if his bullocks become a little stronger and less overworked, he will be well on the way to success. Already he has begun to use better seed, and get water for his fields from surrounding tube wells. If he likes he can also get electric power where it has been made available. So, if only a little attention is paid by him to the question of manure and to fencing his field; and if the system of co-operative purchase and co-operative marketing is also introduced, he will not remain at a very great disadvantage as compared to the large farmer.

Subsidiary agricultural industries are of a great benefit to small scale farmers than to those who maintain large farms. A small farmer gets more spare time than a big farmer; he can, therefore, devote himself with better results to subsidiary industries. A small farmer needs a little more knowledge; he can then take a little more care of his farm and farm produce. He should also be made to understand that co-operation in its various aspects is to be his sheet anchor.

CHAPTER XI. CO-OPERATION.

Co-operation as a movement is the result of a compromise between capitalism on the one hand and socialism on the other. After the Industrial Revolution, capitalism became very pronounced in European countries, especially in England. On account of its many evils that did not fail to attract the notice of thinking men of the times, a sort of reaction commenced in Europe, originating from France. According to a prominent French economist, while capitalism is an exploitation of the weak by the strong, socialism is an exploitation of the strong by the weak! Co-operation is an attempt to do away with exploitation in any form. It aims at helping the weak and the poor, and make them strong and rich after some time. The movement is not against capitalism. On the other hand, it really aims to make those who are not capitalists to-day, capitalists after some time. It is a movement against poverty, helplessness, and despair.

Its chief aim is to eliminate the middle man, as far as possible, from all walks of life. When wealth is produced, labourers are engaged by organisers. The former get wages, while the latter big salaries; and, when they are proprietors, also high profits. Co-operation makes an attempt to eliminate organisers, as a distinct class, from the field of production, so that apart from wages, profits may also be earned by labourers who are regarded as the real workers in a factory. For this purpose *productive co-operation* has been recommended by leaders of the movement.

In the matter of trading it tries to eliminate the middlemen both from retail and wholesale business. This is sought to be accomplished by starting co-operative stores, at first retail, then wholesale also. The difference between retail and wholesale prices now appropriated by the middlemen, traders and shopkeepers, is designed to be preserved for the consumers. For this purpose *distributive co-operation* has been recommended.

Its aim is also to eliminate the money lender as distinguished from banks. The former takes advantage of the momentary need of a borrower while the latter usually satisfies his needs for purposes of production. It recommends for this purpose an organisation for those who want to borrow. The idea is that such men may not be compelled to approach a money lender, but may get money on easy terms from institutions of their own, and then satisfy their own needs. This would result in the elimination of the money lender, and the borrowers will not have to pay high rates of interest to outsiders. Any interest that they pay, will go to their own society—or organisation, and will benefit them after some time. This is the task to be accomplished by *co-operative credit*.

So the aim of co-operation is to eliminate middlemen from fields of production, trading and credit. There are, consequently, several forms of co-operation, known as productive co-operation, distributive co-operation, also called consumers co-operation, and, finally, credit co-operation. In recent times co-operative activity has extended to many other spheres of public activity. The principle of co-operation, if properly understood and wisely applied, can really serve as a panacea for all evils, from which men generally suffer. It tries to put heart into the down spirited, encourages them to be self-reliant, and stand on their own legs, without begging for favours from other people or institutions. It is an appeal to the better part of a man's nature; and if it succeeds, even to a small extent, it will have done a very great service to humanity.

Productive Co-operation. The first and most important attempt of co-operation was made in the field of production. The first experiment in this connection was made by Robert Owen, a rich English mill owner, who possessed a noble and generous heart, and felt for his labourers more keenly than any socialist leader. He started an organisation, by means of which he tried to bring producers and consumers of goods together at one place, so that there may not be any necessity for a middle man and consequently profits may be eliminated altogether. Unfortunately he signally failed in this attempt. Several other attempts were made in England, France and other countries to eliminate the organiser, and substitute for him an elected representative of the workers themselves, but none of these schemes succeeded any where.

In the first place, with the developments of economic life, the productive process has become highly complex. The function that an organiser has to perform has now become so difficult that it is not every man who can perform it satisfactorily. A high degree of skill is necessary, and a great resourcefulness is needed in him. These qualities of head and heart are not easily met with in elected representatives of workers in a factory. They cannot be expected to perform the important functions of an organiser with the requisite amount of efficiency.

In the second place labourers themselves were also responsible to a large extent for the failure of productive co-operation. They would not obey the orders and directions of one of themselves with the same promptness and loyalty as they would those of an outside organiser or general manager. For such reasons productive co-operation in industrial sphere did not succeed. Very recently, however, it has succeeded in a number of workshops started on a small scale in France. It cannot be called a success in the real sense, however, because industrial production on a small scale, especially in Europe, is very little as compared to production on a large scale.

Productive co-operation in Agriculture. The success of productive co-operation in the field of agriculture has been enormous

in Russia where the system in vogue is that of co-operative and collective farming. Even in industrial sphere, it has succeeded fairly well in Russia. Co-operative industries in Russia are chiefly soap, tobacco, confectionery and tailoring workshops. Co-operation in Russia as it exists at present is not, however, recognised as true and genuine co-operation by orthodox exponents of the theory of co-operation.

Productive Co-operation in India. It has not been tried in India, either in the industrial sphere or in the agricultural. Its success in the industrial sphere is difficult as there is no reason why it should succeed here when it did not succeed in other parts of the world. In agricultural sphere, however, there is a scope and likelihood for its success. Co-operative farming is the best remedy that can be suggested for improving the position of Indian agriculture. In a country which has been the home of joint family system for centuries, and where even now, inspite of the inroads of western civilisation, people continue to live jointly, there is no reason why co-operative farming if devised along suitable lines, should not succeed. If even 10 per cent, of the effort devoted on the movement of co-operative credit in India, were devoted to popularising co-operative farming, much better results might have been achieved. Co-operative production in agricultural sphere has succeeded in the dairy industry of Denmark. In India it has succeeded, to a minor extent, in the matter of milk supply to big cities like Calcutta.

DISTRIBUTIVE CO-OPERATION. This consists in starting an organisation financed and managed by consumers themselves. The aim is to do away with the shopkeeper or retail tradesman and thus keep with the consumers of articles the profit that might have remained with the tradesman. The first such co-operative store was started by 28 weavers of Rochdale in the year 1844.

These weavers were very poor, but they possessed the great virtues of courage, commonsense, patience and faith in their effort. In 1844 they started work with a capital of £28 only. This was the beginning of the store movement in England, from where it has spread to different countries of the world.

Characteristics of the Rochdale Plan (i) Goods are sold on current or market prices. So there is no attempt to supply goods at cheaper rates than are prevalent in the market.

(ii) There are no credit sales, only cash sale is permitted. This was the most outstanding single cause of the success of the movement.

(iii) Net profits are divided among members, not in proportion to the capital invested by each, but in proportion to the purchases made by each member during the course of the year. This kept the members tied to his store. The store got ready customers, while the customers found a way to earn profits.

(iv) A small rate of interest, however, is allowed on capital invested by members.

These weavers collected capital by subscribing a share of £1 each, payable by instalments of 2 or 3 pence per week. The Rochdale Society was really based on the idea of production for use, instead of production for exchange. In simpler words, the aim of the society was not to make profits but to gain utility. They aimed at enabling their members to get articles of daily requirements at market rate, of full weight and measure, and unadulterated. They had certain other ideals also, which they tried to achieve by practical methods. The following were some of them:

(a) Improvement of housing conditions of members (b) The reduction of evils of unemployment and low wages. (c) Manufacturing of articles required by members (d) Acquisition of estate for cultivation to provide employment for members (e) Promotion of temperance.

The store movement has served a very useful purpose for English labouring classes. It has brought together the labour class in a way which would not have been otherwise possible. Their economic position has improved a great deal. Many members have now their own houses, which they constructed after borrowing money from banks or private capitalists, who readily advanced the required sum against the security of the annual dividend which each member earned from his store.

English Co-operative Wholesale Society. With the progress of the co-operative store movement in England private traders became jealous and refused to deal with those wholesale firms which dealt with co-operative stores. Private traders also entered into competition with the co-operative stores in the market for purchase of goods, and consequently raised prices. Most of the stores were ignorant of the methods of purchase, customs of the market, and price of commodities. Keeping in view all these difficulties the English Wholesale Society was started in 1863. Its capital was subscribed by affiliating primary societies, each taking shares in proportion to its membership. Only societies could be its members, and goods were sold to them at ordinary market prices. The profit in the case of primary societies was distributed among the members in proportion to their purchases. Sales, however, were made to non-member societies also, by the Co-operative Wholesale Society.

The work of the Wholesale Society went on very successfully. Branches were opened at many places, and purchasing agencies were established at important market places in England and Ireland, even in certain foreign countries. In order to enable the societies to bank through the wholesale society, the banking department was soon established and after a short time the wholesale society, decided to start manufacturing for the requirements of the member stores.

✓ Causes of the success of co operative store movement in England.

(1) After the Industrial Revolution, food stuffs and other necessary articles had become very dear. Traders and merchants adulterated food stuffs, and gave short weights and measures to their customers. So, there was a great demand among the poorer members of English society for reliable stores.

(2) On account of high over head charges, the difference between the wholesale price and retail price was sufficiently high. Comparing India and England in this respect, it may be pointed out that the percentage of profits in England, on retail sales, is usually between 15 to 20 p c., whereas in India it usually does not exceed one anna in the rupee, which comes only to about 6½%. The profits of the Triplicane Stores of Madras are only between 7 to 8%.

(3) Food in English stores is sold in higher stages of preparation than in India. In England, for example, bread and butter are sold, while in India, it is mostly wheat and milk. So, there is greater scope, for profits in English stores than in Indian.

(4) There is a large wage earning class in England, which resides usually in towns owing to a uniform standard of life among all labourers, large quantities of the same thing are demanded at the same time. In consequence the production of articles on a large scale becomes easier.

(5) On account of the development of trade unionism in the country, a spirit of association has been developed which helps the formation of any new society or organisation, and ensures its success.

(6) In England, shopping is done by women. For this reason cost of distribution is reduced very much. In India, on the other hand, there is the practice of door to door delivery, as in Bombay.

(7) The movement in England had the advantage of a start. The establishment of the Wholesale Societies consolidated it, and gave it a self sufficing status, which contributed largely to its success.

(8) The educated people of the country helped the movement both with money and advice. The Christian Socialists were prominent in this connection. In India, on the other hand, the intelligentsia have kept themselves aloof from such movements.

(9) The most potent cause of the success of the movement was restriction to cash sales only. Although in the beginning the English stores met with considerable difficulty in keeping to this practice, after some time the customers became accustomed to cash sales.

✓ **Causes of the failure of the movement in India** (a) Ignorance of the basic principle of the movement is the first cause. Stores are considered to be places for cheap buying—while as a matter of fact, the real aim of the store is to enable a buyer to get full value for the money he spends on purchases anywhere.

(b) It is very difficult in India to find an honorary manager who might, at one and the same time, be a member of the store, and yet may regard himself as almost an employee of it. Second, or even third grade people, have to be appointed as managers of the stores. Under these circumstances, one cannot expect a high degree of integrity and honesty from managers.

(c) The practice of door to door delivery does not contribute very much to the success of the movement.

(d) There is no uniformity in demand

(e) Articles are demanded at a very early stage of production.

CO-OPERATIVE CREDIT. The movement of co-operation has also been extended to the field of credit where its aim is to eliminate the money lender. The credit for the initiation and development goes to Germany. The movement originated in that country and was led by two great Germans, namely Schulze-Deilitsch and Raiffeisen. The agricultural conditions in Germany were highly unsatisfactory in the middle of the 19th century. Agriculture is every where an uncertain occupation. On account of this uncertainty, those who are engaged in it have to seek for financial assistance, some time or the other, from outsiders. For this reason, agriculturists are more likely to fall into debt than others. This was the position in Germany, where the peasantry had fallen heavily in debt to the money lenders who were mostly Jews. The two Germans came out with their plans to start co-operative credit societies, one in the rural and the other in the urban areas at almost the same time. Raiffeisen was the man who was more interested in the introduction of credit movement among rural areas. Schuleze Deilitsch, on the other hand, tried to start credit societies for the purpose of helping petty shop keepers and artisans residing in towns. We give below the characteristics of both the models

Schulze Deilitsch Model This is a sort of town bank. It provides credit only to its members, and has a share capital. Each share is generally of quite a respectable amount. This results in stimulating thrift, because each member must subscribe at least one share, although, at the same time, none can hold more than one share. Without shutting small industrialists from subscribing, the amount of share is fixed at as high a figure as possible. The amount of the share is payable either at once, or in small instalments. Until a share is fully paid up, all profits accruing upon it are utilised towards payment of instalments. The liability of share holders is generally unlimited, but can also be limited. These banks furnish credit to their members, either in the form of loans, or in the form of a trade discount, usually for 3 months, though this period may be extended.

The entrance fee of members is transferred to reserve fund. On the security of share capital, reserve fund and the unlimited liability, further supplies of capital are received. Business of these societies is conducted in an up-to-date style in an imposing building, and a large number of clerks are employed.

Raiffeisen Model This is a credit society meant for people who carry on the occupation of agriculture and reside in a village or a rural area. In this model there is no subscribed capital, and the liability of the members is unlimited. No dividend is distributed among share holders, but the entire sum is kept as reserve. The reserve is of two kinds, (a) that which is utilised only in case of losses (b) that which is used for extension and development purpose. The former is the reserve fund proper, while the latter is really the foundation fund. The loan capital is made of small savings and deposits. It receives loans from central banks which are formed especially for this purpose. Deposits are received from members, as well as non-members. These societies help their members in the purchase of property by advancing money. Sometimes the bank itself purchases property, if the members are, for some reason or the other, compelled to sell it at a time when prices are exceptionally low. After purchasing them from members at a low price, they sell them at a higher price. The difference between the two is given to the owner of the land.

Raiffeisen banks have done a great deal to improve the position of the agriculturists in Germany. They have brought together the agriculturists who used to live a lonely life, and were mostly ignorant. At present, 50 per cent. of the independent agriculturists of Germany are members of rural banks, and another 10 per cent, chiefly big farmers, are members of town banks. Raiffeisen banks are most popular in south west Germany, which is the home of the small peasant proprietor.

Co-operative Credit in India Under the Viceroyalty of Lord Curzon, the first Co-operative Credit Societies Act was passed in 1904. The following were the important provisions of this Act —

1. A co-operative credit society can be started when ten or more persons, usually residing in the same town or village, agree to become members of the society.

2. The main business of the society is to raise funds by means of deposits from members or by loans from non-members, Government and other co-operative societies, and then to distribute these funds to those members who stand in need of money.

3. The liability of a member is to be unlimited.

4. In the case of societies started in towns the dividend is payable, after twenty five per cent of the profits are transferred to the reserve funds.

5. The liability of an urban society may be either limited or unlimited.

6. No single member can hold more than one sixth of the shares, nor can his share exceed Rupees one thousand in value nor can he have more than one vote.

The purpose of the Act was to confine the area of a co-operative credit society to a village, so that the members may be very well known to one another, and therefore may be in a position to influence one another in certain essential respects. The purpose being to inculcate thrift among people, it was considered necessary that members should help one another in resisting the demand of the society to spend large sums of money on certain social occasions. The liability of members was kept unlimited, in the first place to impress upon them the importance of mutual help and sympathy, and in the second place to improve their security in the eyes of other creditors.

It was expressly laid down that loans were to be given to members mainly for productive purposes such as current agricultural operations, permanent improvements in land, and, very rarely, for unproductive purposes, such as expenses on some religious occasions. Loans could also be granted for purposes of the redemption of old loans. The management was entrusted primarily to the managing committee, elected by the general committee, composed of all members of the society. The general committee also appointed a paid secretary, and it alone could amend bye-laws, pass balance sheets, and fix a maximum amount of credit which the society could lend to different members in a particular period of time.

If the number of members in a society becomes very large, its efficient management comes down; on the other hand if the number is very small the expenses of management become proportionately heavy and do not leave any margin for reserve. The primary societies are granted certain concessions by the Government. They are for example exempted from income-tax and registration fees. They are also exempted from ordinary commercial law of companies. The Government treasury also gives them facilities for transfer of money.

Test of Efficiency. What is most needed in a rural Co-operative Society is the regularity and punctuality in the payment of interest and the return of capital. It is a matter for regret that these important qualities are not very well developed in many of our countrymen, for the obvious reason that illiteracy is general. When payments are not regularly and punctually made, a society cannot succeed. The test of its efficiency therefore, lies in the fidelity of the members regarding the principles underlying their society, the most important of which is the fulfilment of a promise at the right time and in the right way.

When payments are made regularly and punctually, there is no reason why a society should not become a success within a short time. Its profits will increase when there are no unpaid instalments and dues, and, in consequence its reserve will increase

though this period may be extended.

to a large extent. The stability of a society is measured in terms of the amount of its reserve funds. Outside agencies will advance money on easier terms to those societies which have a greater reserve fund to fall back upon in case of need.

Advantages of Co-operative Movement in India There are many advantages which India can derive from the success of Co-operative movement. They may be divided under four heads.

(i) *Economic Benefits.*

The aim of a Co-operative Credit Society is to enable the cultivator to get money at cheaper rate, utilise it for productive purposes, reduce his unnecessary expenses which sometimes he finds himself compelled to incur under social pressure, and to inculcate the habit of thrift by depositing his saving in his own society, so that its stability may increase and he may be in a position to derive greater benefit out of it. If a co-operative society succeeds in achieving this there is nothing left to be done for the Indian cultivator. If he produces more and consumes less; pays a lower interest and that, too, to his own society; and lastly, develops the habit of saving, he becomes entirely a changed man. This is certainly the object of a Co-operative Society. To what extent it has succeeded in achieving any of the above objects, or can achieve them in the manner in which they are sought to be achieved is a different question on which opinions vitally differ.

It is said that in some parts old debts have been paid off, which carried high rates of interest, and the cultivators have now been relieved to some extent. It is also said that the Co-operative Society has disturbed the traditional hoards of India by inducing to some extent, the Indian cultivators to deposit their savings in Co-operative Societies. It has also been pointed out that on account of Co-operation improvements have been made in agricultural land, through better seed, implements, manure etc. We, however, maintain that although all these benefits are latent in the scheme of co-operation, no appreciable advantage has as yet accrued to India by this movement. When we compare the result with the efforts and expenditure of the Government on the movement during the last 39 years and more, we are highly disappointed.

(ii) *Educational Benefits.*

Other advantages associated with the progress of the co-operative movement are of an educational nature. It helps to educate the cultivator considerably when he becomes a member of a society and takes part in its deliberations. For an Indian cultivator to be a member of a society, and to be called now and then to attend a meeting and sometimes to be elected even to the managing committee, is something very extraordinary. He certainly feels much elated when he is appointed a member of the managing committee or becomes the *Surpunch*. If he wants to take further and closer interest in the society, he will certainly

have to know something about its rules and regulations. If he does so, it will no doubt educate him to some extent. But if it is seriously asserted that in order to take active interest in the affairs of the society and in order to understand figures in pass-books, check receipts, and sign promissory notes, literacy has actually been encouraged, we cannot agree with those who hold this opinion.

The unlimited liability of a co-operative society is, no doubt, a very good means of creating mutual dependence, trust and confidence among members of a society. When one knows that he has to suffer, and is prepared to suffer, for the action of another, it no doubt makes him a very good man; but if he does not at all realise the significance of unlimited liability, we do not think he can gain anything by its being made a cardinal feature of the society. If conscientiously followed and carefully understood, the principles underlying a co-operative credit society will in no time change human beings into angels but the question is to what extent this principle is actually understood and sincerely acted upon.

To say that the principle of unlimited liability has acted as a great check upon unthrifty habits of cultivators and that social opinion has become in favour of economic living is to indulge in exaggeration. They are all possibilities of the Co-operative movement, but not its actualities.

(iii) Social Benefits.

The idea of limiting the area of a co-operative credit society either to a single village or to a principal caste or tribe was to ensure that members of such a society knew one another perfectly well, and could observe and check one another's actions in economic and social spheres. That is to say, if one of them was inclined to spend more on the occasion of a social custom others would dissuade him from adopting this course, as they would feel that their liability for his default was as great as that of himself. They would not, therefore, easily permit such a person to spend more than absolutely necessary on such an occasion, and in this way would save him from excessive expenditure and consequent financial difficulties. This is possible only when say, 8 or 7, or even 6 out of 10 members are against spending money over such social functions, and are prepared to incur the odium of other people of the village. But if 10 out of 10 are, in their heart of hearts, anxious to get a larger amount of money, so that they may spend more on such social functions, it is not possible for any improvement to be effected. We are constrained to say, even in this connection that no serious attempt has yet been made by those incharge of the movement, to explain all these principles to those whom they succeed in inducing to become members of a co-operative society. We do not think that any social benefits worth mentioning have been conferred upon people by the co-operative societies upto now except in the Punjab where the causes of its success are different from those that appear on the surface.

(iv) Other Benefits.

In certain parts of the Punjab, the monopoly of money lenders has been broken by co-operative societies. But this seems to have been only to a very minor extent otherwise there would not be any necessity, what-so-ever, for the passing of the Land Alienation Act, and many debt legislation. The Provinces have tried by various means to check the activities and reduce the powers and influence of money lenders in different Provinces of India. But they seem to possess cat's lives.

We have said enough in connection with the supposed benefits that co-operative movement has conferred upon India. We wish we could say that the movement had succeeded in the country, and had done that amount of good which was claimed for it. But this cannot be conscientiously said. However, one is always open to error.

Characteristics of the Co-operative Movement in India. (a) It has been official in its conception, initiation and control. It cannot be called a people's movement, as it has been in Germany and other European countries. In this respect it resembles Japan, more than it does any other European country.

(b) It has been confined mostly to agricultural credit. The first Act of 1904 was confined to co-operative credit and was named as such. It was only in 1912 that its scope was widened.

(c) The people meant to be benefitted are mostly illiterate. This was not so in Europe, even in the middle of the 19th century, except in Russia, where illiteracy was almost as great as in India at present; but there were other good features in that country which are absent in India.

(d) Because of this illiteracy and lack of training in other respects, people are quite ignorant of the true principles of co-operation and their importance. The movement is generally regarded as a Government movement, in which it is suspected that the Government is interested for some ulterior motive.

(e) The intelligentsia in the country are apathetic in this respect. In Europe, the movement was initiated and developed mainly by the well-to-do, but sympathetic people. In India, on the other hand, the non-officials are not interested and are also generally kept at a distance by the officials of the Co-operative Departments.

(f) So far as the actual work is concerned, it may be said that there have been more attempts on the part of both high and low alike, at window dressing than any really useful work. This has been so with the possible exception of the Punjab, where other causes have combined to make the movement a greater success than in other provinces.

(g) The spread of the movement, as pointed out above, has been along a single line. In Europe it was found that a combination of functions proved very useful. With credit societies, for example the functions of purchase or sale were also combined.

This has not yet been attempted on any appreciable scale in this country.

(h) There has been very little consolidation, inspite of the grave warnings given by MacLagan Committee in this connection. The result has been a sort of demoralisation owing to slack management and insufficient control. Lack of supervision and audit has been a marked feature in a large number of Provinces.

Characteristics of a truly Co-operative Society (1) Knowledge of co-operative principles is essential, and members should be properly selected with due regard to their character and capacities.

(2) Honesty should be regarded as the basis for credit

(3) Dealings should be confined only to members.

(4) Loans should not be granted for speculative purposes.

(5) There should be scrutiny and vigilance before and after advancing a loan

(6) The constitution of the Society should be democratic. This means that its real powers should be vested in the hands of general members and not in the hands of the Committee, *Surpanch* or the Secretary.

(7) Greater attempts should be made to inculcate thrift among members.

(8) There should be only one vote for one member

(9) Capital must be increased by means of savings, as far as possible.

(10) There should be greater punctuality in repayments.

Criticism of the movement in U. P. by the Oakden Committee with reference to the ten characteristics given above.

1. Few of the members understand the purpose of the Society. Co-operative education is quite unsatisfactory. Members are not carefully selected. Societies are opened more for the sake of show by the agents of Co-operative Banks than to serve any useful purpose.

2. Credit is granted to those who succeed in securing the favour of the *Surpanch* or the Secretary, and not much attention is paid to honesty.

3. Dealings are generally confined to members only.

4. Occasionally loans are granted for purposes which cannot be called productive, though they are not speculative either. Loans for marriage expenses are regarded as legitimate; also the record of purposes for which money is lent is not at all reliable.

5. There is no scrutiny before, and no vigilance after, a loan is granted. *Punchayats* and members neglect their duties in this respect entirely. In several societies loans are recorded as repaid, and a fresh loan is shown as made, though, in fact there was merely a book adjustment.

6. Though nominally democratic, the powers are vested in the *Panchayat* or the *Surpanch* and sometimes in the Secretary.

7. No appreciable result has been achieved in this respect, though the amount of reserve fund has increased to a considerable extent. Indebtedness, however, has not shown signs of diminution.

8. and 9. They are generally followed, though in the matter of 9, some difficulty is experienced, and societies depend mainly upon financial assistance from the Co-operative Bank.

10. This is not at all observed and is one of the most important causes of the decline of the movement in the Province.

Other defects pointed out by Oakden Committee. (a) Insufficient and unsuitable staff, (b) The lack of honorary workers, (c) Hostile attitude of money-lender. (d) Serious abuses at the time of liquidation. (e) Embezzlement and corruption. (f) Favouritism in making appointments (g) Lack of co-operation between the co-operative department and land-holders.

Summary of the main recommendations of the Oakden Committee. 1. More attention should be paid by departmental officers to organisation and supervision which have been much neglected.

2. Central Banks should be relieved of duties of organisation and supervision which should be entrusted to a Provincial Committee with a general control over the staff. (This has been accepted by the U. P. Government. It is becoming gradually powerful).

3. School teachers should be encouraged to become interested in co-operation and their services as Secretaries of societies should be obtained whenever possible.

4. There should be standing committees for making loans to individuals and for fixing the actual demand at each harvest.

5. Societies for the sale of agricultural produce are not recommended at present.

6. More societies for the supply of seed, implements, sugarcane, presses etc., should be started.

7. *The help of co-operation should be taken in the consolidation of holdings.*

8. An increase of supervising and inspecting staff is recommended.

9. A Provincial Bank must be started as soon as possible.

10. Land mortgage Banks are also recommended.

Present Position As a result of the recommendations of the Oakden Committee the control of supervisors has now been transferred from Banks to a Provincial Supervising Union and an attempt has been made to restore the primary society to its rightful place as the key-stone of the co-operative system. There

is now a greater co-ordination between the co-operative department and other welfare departments. It has also been realised that the problem of the villager cannot be solved by credit alone and that if his lot is to be improved, every aspect of village life must be treated together, i.e., what rural reconstruction society or better farming and better living society attempts to do. Its avowed object is to promote the economic and social interests of the members by re-organising the common life of the village, and in particular to enable them to improve their condition through co-operation. The society tries to create and focus public opinion in the village, and to develop public conscience.

Land Mortgage Banks. About 40 years have passed since the inception of the co-operative movement in India. The experience gained during this long period has compelled the advocates of the movement to moderate their original expectations in regard to the possibility of wiping off the colossal indebtedness of the rural classes through its agency alone. It is now being realised that the ordinary co-operative credit societies alone will not be able to cope with this problem, and that they must be supplemented by other kinds of organisation dealing specifically with the problem of rural indebtedness.

In order to bring about the permanent release of the agriculturist from his indebtedness, loans for sufficiently long periods are necessary. They are also required for effecting costly but profitable improvements in land. The co-operative societies can meet with difficulty the current needs of the agriculturists. They cannot afford to lock up their funds for a long time. Moreover, the Raiffeisen type of a village bank, cannot meet the requirements of the large landed proprietors, who fall an easy prey to the money lender. Land Mortgage banks when started, will displace not only the money lender, but also the present unsatisfactory system of State loans.

The type that suits India The question depends partly upon the class of persons whose long-term credit needs are to be served. The Commercial Land Mortgage bank may perhaps be better suited to finance big *Zamindars*. As far as relief to small agriculturists and owners of small holdings is concerned the co-operative type is the most suitable. The poor ryots with small holdings, cannot secure credit except through organisations based on mutual association and guarantee. The funds of such a bank can best be raised only on the collective guarantee of the properties mortgaged by the members. It follows that these members should have a voice in the management of the bank. The schemes adopted and worked in the Punjab, Madras and Bombay are in a sense of the co-operative type. But strictly speaking the type which is in vogue is of the Quasi-co-operative variety.

Their constitution in India They are conceived as limited liability associations of borrowers with a few non-borrowing individuals thrown in for attracting initial capital as well as the business talent and organising capacity needed to make the

management efficient. The number of shares owned by members is limited. The rule of one-man-one-vote, irrespective of the share capital subscribed by them, is generally adopted. Dividends are restricted to a low figure and the goal of gradual elimination of non-borrowers is kept in view to give a co-operative touch. The fact, however, remains that the work of a mortgage bank is recognised on all hands to be extremely impersonal. The human and personal element which are the chief characteristic of the Raiffeisen type cannot be infused into them in any appreciable measure.

Co-operative Sale Societies Co-operative marketing through sale societies was first introduced in the province of Bombay but has now extended to different provinces. There are at present many sale societies in the country.

Their Organisation and Business The primary aim of a sale society is threefold:—

- (1) To sell the article of its members for adequate prices by a suitable method.
- (2) To supply them with pure seed.
- (3) To disseminate information regarding agriculture and trade among growers and buyers.

The constitution of the societies is a mixed one and both individuals and societies are admitted as members. The article is sold even to non-members, through the society, in order to induce them to become members. Of course, non-members do not get the bonus on sales which is distributed among members only. Members are admitted on condition of taking up a share in society and agreeing to sell their produce through it. The question of members' loyalty raises some difficult problems. The members are not to be blamed for this breach of trust, for the credit societies do not always extend them timely finance.

Methods of Sale. When the article is brought to the sale society it is always weighed in the presence of the owner who is given a receipt. If he wants an advance, it is paid to him upto 60 per cent. of the value of his goods. The next stage is grading of the article according to its colour, cleanliness and other characteristics. The date of auction is announced and statements are sent to the buyers with average sample of each class. There is a keen competition among the buyers which secures higher prices. Unless the owners advise the society to sell their cotton, it is not offered for auction. After meeting all the expenses and carrying $\frac{1}{4}$ of the profits to the Reserve Fund the balance is distributed as dividend on the share capital and as bonus among the members on sales.

Benefits of co-operative sale (1) Weighing is done in the presence of the owner.

(2) Adequate and higher prices are realised

- (3) No indiscriminate allowance is granted to the buyers.
- (4) Sometimes produce is insured against damage or loss by fire.
- (5) Prompt payment of sale proceeds is made to the owner of the article
- (6) Loan is advanced on the deposit of goods upto 60 per cent of the market value at a low rate of interest
- (7) Information regarding daily fluctuation is obtained.
- (8) Superior quality is sold in big lots.
- (9) Seed of the approved type is supplied to them.
- (10) A bonus is paid on the quantity of the article sold and, dividends are given on the share.

Difficulties in the way of co-operative sale. 1. Want of loyalty of members and inadequate finance supplied by credit societies, are serious handicaps. In order to give financial help, the Government should hand over a portion of its cash balance during the harvesting and marketing period to well conducted societies.

2. Lack of godown facilities is another great difficulty. Government should either itself construct warehouses and let them to sale societies, or advance loans to enable them to build their own godowns.

3 Lack of suitable plant. The sale societies must have their own necessary plant to handle the material for sale. Pooling System should also be adopted on the Gujrat system for pooling of prices and goods, and the payment of the average price for the season may be found to be more profitable. A Federation of Sale Societies should also be organised to increase their bargaining power.

Rural Reconstruction The Victorian era in India was the period of urban glorification. The country side was almost entirely ignored. Now, however, there seems to have begun a violent reaction. The rural conscience has been stirred and the danger to be guarded against at present is, the almost blind-zeal of the reformer. There are some who want to re-build the village after the city, with which they are familiar; there are others who wish to reform it from within.

The co-operative movement itself is indeed a great experiment in rural reconstruction but it has not proved as successful as it was expected to be. The reasons are not far to seek. Concentration on the credit side of the movement with only half-hearted attempts for the co-operative organisations of supply and marketing, a growing multiplicity of institutions for various purposes, the tendency to regard the agriculturist as a bundle of various needs to be met separately, the neglect of the educational, sanitary, medical and the social sides of the village life, explain very clearly why the achievements of the co-operative movement during the last 39 years have fallen so far short of its objective.

Those who belong to the first category, mentioned above, object to the use of the word "reconstruction". They say, it implies the existence of something that was valuable which has been destroyed and which it is our aim to reconstruct. According to them, there was nothing in the history of the country for which we could feel proud, and that the past in our village life was nothing but inglorious. According to others, people of the first view have misread the history of the country. The history of our villages forms the most glorious chapter in India's history of self-government, and it should really be our object to revive though with necessary adaptation, the agencies of yore. The problem before the revivalist reformer is therefore the dual problem of re-habitation of the economy of country life, and quickening of the pulse of family life. Education of grey haired and the young is the first requirement. They must be made literate. When the grey heads become literate, the problem of education of the young will become quite easy. The institution of the village, must be revived. If possible, school should be located on regional, rather than on a communal or sex basis.

The next consideration appears to be cleanliness of the village. The front and back yard of every house should be swept by the house-owner himself. There are certain festivals which, if observed in the right spirit, can go a long way to solve, or at least ease, the problem of cleanliness of the village.

In short, there are two institutions on which we must concentrate, first the school, as centre of community life, secondly, the woman as the centre of family life. We want to make the villager take an intelligent interest in his institutions, and revive them with necessary changes that the spirit of the times demands.

The various departments of the Province should study its special needs and make provision for them with materials which are indigenous, and which are manipulated by the agency which is locally drawn. The village is still an unexplored region. It calls for the explorer.

Co-operative Housing Societies The co-operative housing movement had its origin in England in the beginning of the 19th century. It was started by the labouring classes to free themselves from the oppression of high rents levied by the landlords. In India, the movement had its origin in the Bombay Presidency, after the Co-operative Societies' Act of 1912 had legalised the formation of Societies for purposes other than credit.

There are two main systems of co-operative housing; one is known as the Individual Ownership system, and the other as Co-ownership or Tenant-co-partnership system.

1. INDIVIDUAL OWNERSHIP SOCIETY

This is the older system of the two. These societies are merely loan societies somewhat like our credit societies, but having the sole object of making loans for erecting or purchasing a residential house. There are several varieties of this system

(a) **The Terminating Building Society** It takes only a limited number of persons who want a house as members, each of them undertaking to contribute weekly, or monthly subscriptions. As subscriptions accumulate, the amount is lent to each member by turn, the selection being made by lot or agreement. The loan is made on the mortgage of the house, the borrowing member being required to repay it with interest by monthly instalments. When all the members have been helped by loans to build or purchase houses, the society waits till all the loans are paid up. The accounts are then finally made up, the profits distributed, and the society dissolves.

(b) **The Permanent Building Society** It is one, the membership of which is not fixed. It is based on shares, and receives deposits and loans. It goes on enlisting new members and making loans as funds come in. The period of repayment varies up to as long as 20 years. In the case of a house to be newly built, advances are made in instalments, from time to time, upto the sanctioned amount on producing certificates of progress.

(c) **The Hire Purchase System**—In this system, the society builds houses on its own account to suit the requirements of its members who occupy them as ordinary tenants with the option to purchase them by paying the price in small instalments along with the rent. As the rent includes interest on capital, and also other charges, the tenant has to pay only the price, and when the full amount is paid the house is conveyed to him. Such a system is possible only in those societies which have got large unused funds in hand.

2 THE CO-OWNERSHIP OR CO-PARTNERSHIP SYSTEM

In this system the society takes up a large area of land and constructs building, thereon, for the residence of its members, and makes provisions for their common benefit. Members reside in buildings as tenants of the society. They contribute capital to the extent of $\frac{1}{3}$ to $\frac{1}{2}$ of total cost, in proportion to the gross residential area provided. The remaining capital is raised from outsiders by way of a long period loan which is taken on the security of all the buildings. In England, the societies of this type issue debentures, or long term bonds, of varying values, bearing interest at 1% above the bank rate. Such bonds are very popular among investors in that country, and are readily taken up. In our country, they have not yet become popular. Hence, the Government of Bombay has undertaken to advance loans to Housing Societies of this type to the extent of $\frac{1}{2}$ of the paid up Capital, repayable in 40 years by annual instalments, with interest at 5½%. Governments in other Provinces have recently commenced to advance long term loans for this purpose at about 6 per cent.

In this system, the position of the society, as well as of members, is secured. The society holds a substantial stake of the members and there is no chance of default. Though no member

is the owner of any building, yet all members are joint owners of all the buildings. It is something like the ownership of a Hindu joint family, but without the right to ask for separate share by partition. It is socialist ideal in which the ownership rests in the community as a whole, and not in individuals. The society is managed by members themselves, and though they are tenants, the society itself is the landlord. The rights of tenants and the landlords are merged in the body and hence the system is called 'co-partnership' or 'co-ownership' system.

CO-OPERATIVE HOUSING IN INDIA

The Saraswat Co operative Housing Society, Bombay.—The society is based on the 'co-partnership system'. It has erected a large number of buildings on the land taken from Bombay Improvement Trust on a lease of 999 years. The cost of whole property now amounts to several lacs of rupees. The capital is made up of shares of Rs. 20 - each and debenture bonds. One third of the total capital was contributed by members, the rest being made up of loans and deposits. The maximum rate of dividend is fixed at 5 per cent the same rate is paid on loan bonds.

Progress. The success of the Saraswat Housing Society, and the announcement of loan facilities by the Government, gave encouragement to others to form similar societies. At the end of March 1935, there were 75 societies in Bombay Presidency with a membership of 6000, and a total working capital of more than a crore of rupees. Out of 75, 28 are in Bombay city and its suburbs; 23 in Ahmedabad and 9 in Karachi and the rest in other parts of the province.

Tenant Ownership System.—Even the societies of individual ownership type help their members to build houses in close proximity to the land acquired by the society. All the societies are formed on communal basis. It was therefore considered expedient that some restriction should be placed on the right of a member to alienate his property to anyone he liked. For this purpose the *Tenant Ownership System* was devised. Under this Scheme, the society the time of handing over the plot of land to each member, conveys it by a lease, stipulating that in case of his intention to alienate it after or before erecting a building, the society shall have the first choice to take it over by a right of pre-emption. The lease also prohibits profiteering by laying down certain stipulations, that in the case a higher price be obtained from outsiders, the society shall be entitled to a share of the surplus.

Tenants Society A variation that is possible in the above system is that a number of tenants may join together, to take one or more buildings on hire, from a landlord for a long term of years, for letting out to tenants or to themselves. The

efforts made to start such societies in Bombay have failed, chiefly on account of the unwillingness of landlords to lease out property for a long term thereby depriving themselves of the chance of increasing the rent

Absence of working class Housing Societies. No Housing Societies are started among the working classes in India. This is in striking contrast to the conditions prevailing in England, where the Co-operative Housing Movement had its origin among its working classes. The reason is not far to seek. Great efforts were made in England since the Industrial Revolution for a systematic development of thrift among the working classes. Unfortunately, in India the question of thrift has received very little attention among the working classes, and no benefit societies have yet been started in this country for them nor have the few store societies started proved successful. The Housing Societies requiring a much larger investment of capital are, therefore, out of question for them. Those that have been started are so far confined to the middle classes, such as clerks, pleaders etc. on a communal basis.

Difficulties of Housing Societies in India. (1) A Housing Society has to invest capital without earning income and also to incur liability to pay interest on borrowed capital. (2) In addition, the societies in Bombay undertook the construction work during the war time when the cost of labour materials had gone up very high, and a couple of years after, it again went down. (3) The societies receive no favourable treatment from Municipalities. All these hardships have greatly handicapped co-operative housing enterprise in India.

Housing Societies in other Provinces. In other provinces, they are all of the type of the lending societies for individual ownership. There are at present in the Madras Presidency about 150 societies with a share capital of 12 lacs. The most interesting experiment is the *Lahore Model Town Society in the Punjab*. It has about a thousand members, a working capital of 35 lakhs, 85 residential houses, 9 miles of metalled roads, a club house, a tube well, a regular motor service, a school, and a dispensary. Thus it presents a great achievement.

CHAPTER XII

EXCHANGE OF WEALTH

BARTER-EXCHANGE-MARKETS

Origin of Barter. We know that all production is undertaken for the satisfaction of our wants. As long as the family remains a self-sufficing unit of production all its wants are satisfied by the efforts of its different members, and the necessity for an exchange of goods does not arise. But when the wants of a family grow in number and variety, it no longer remains possible to satisfy all wants by its own efforts alone. Each family then, begins to specialise in the production of a single commodity and satisfies its different wants by giving a part of this commodity in return for those which it needs. This state of things is brought about firstly by an increase in the number of wants of a family and secondly by its inability to satisfy all these wants by its own efforts. Specialisation of production brings about division of labour and results in the primitive exchange of goods for goods.

Barter. Barter is an exchange of one commodity for another. If a farmer gives 20 seers of wheat to a weaver, in exchange for a *than* of *gurha*, the transaction is called barter. There is in this case a direct valuation between wheat and cloth. In this way any commodity may be directly exchanged for another. In the earlier stages of man's economic development, the system of barter was quite common. His wants were still few and simple. But in course of time they became more numerous and complex. With the change in the character and number of his wants, the primitive system of exchange namely 'barter' also became unsuitable and grew cumbersome. Its weak points came into greater prominence, and people began to feel handicapped due to this clumsy method. For example, it often happened that a farmer who wanted a *than* of cloth, could not easily find a weaver who not only wanted to sell cloth but also wanted wheat or any other food grain. This clearly required a double coincidence which was not easy to obtain always. It also became difficult to evaluate an increasing number of commodities in terms of one another. For ten commodities there were 45 values, but for 100 the number was 4950!

Exchange; Sale and Purchase. So it became increasingly difficult to continue with the old system of exchanging commodities for commodities. The problem was solved by selecting a principal commodity which every one was prepared to accept in exchange for his own, and by evaluating all commodities in terms

of it. This principal commodity began to be known as money, and the process of barter was splitted up into two separate processes, sale and purchase. The farmer would first sell his wheat in exchange for money, and then with this money purchase cloth or shoes or any other thing that he needed. The simple and direct method of barter was replaced by the more complicated and indirect process, called exchange. Although apparently more complicated and indirect, it removed all difficulties of barter.

Gain to both parties in Exchange. There are always two parties in every exchange transaction, and both should gain if there is no compulsion or complete ignorance on either side. This principle hold good both in barter and in exchange. An illustration from barter economy will make the point clear. Suppose there are two persons, one has in his possession 100 big mangoes, while the other has 100 big apples. The man with 100 mangoes would naturally want a few apples in return for some of his mangoes. In the same way the other man would welcome a few mangoes in return for some of his apples. The man with 100 mangoes does not attach very great importance to the last 5 or 10 of his mangoes, because even without them he will have 95 or 90 left. So he does not mind giving away 2 mangoes, if he can get in exchange for them one apple. To express in a different language we may say that he estimates the worth of his 100th and 99th mangoes as equal to that of the first apple when it comes in his possession.

The man with apples might also think likewise. He too, is prepared to part with 2 of his apples, if he can get for them one mango. To him also the marginal importance of his 100th and 99th apple is not more than the initial importance of the first mango. So each one is really prepared to give 2 of his own fruits in exchange for one of the other. Now, suppose, after a number of clever moves on either side, the final rate is settled at one apple for one mango. It is obvious that both parties have gained in the transaction. One was prepared to give 2 mangoes for one apple, but gets one apple for one mango only. The other was prepared to give two apples for one mango, but gets one mango in return for one apple only.

What holds good in barter, also holds good in our every day exchange transactions. We purchase a chair for Rs 4 from a furniture dealer. The furniture dealer values rupees more than he does the chair, because he has more of chairs than rupees. On the other hand, we attach greater importance to a chair than to Rs. 4, because we have no chair, though a fairly large number of rupees, and so we attach greater importance to the former than to the latter, under the circumstances. After getting a chair for Rs. 4 we think that we have got a more important thing in exchange for a comparatively less important one. This is exactly how the furniture dealer thinks. So both parties gain in exchange, as they do in barter.

But there is one important condition for this, namely, that there should be no compulsion on either side. If a cultivator's bullock cart is requisitioned by a *Tehsil chaprasi* to carry the luggage of a Tehsildar on transfer, in exchange for a few rupees, the element of compulsion is introduced. The cultivator is anxious to go back to his village and take up his agricultural work or do anything else that he likes. He does not want to accept the proposal of his tormentor. But he has no option. He has to go, whether he likes it or not. In such cases, the gain of exchange is only on one side; on the other there is certainly no gain, but there may be actual loss.

MARKET.

Every body is familiar with the term market and understands its meaning fairly well. It is a place where different articles are bought and sold. A market may be general or special. A general market is one where different types of commodities are bought and sold; while a special market is that where only one commodity, or a special class of commodities, is bought and sold. *Subzimandi, Dalmandi, Najmandi, Sarafa, Bazar* and so on are instances of special markets. This is the ordinary meaning of the term; but in Economics it is used in a highly extended sense. It represents not a definite place, in or near a town but the whole area within which a commodity is bought and sold and where its buyers and sellers are as closely in contact with one another as they are in an ordinary market. The effect of their being closely in contact with one another is that the price of the commodity becomes more or less uniform. If, therefore, when even at great distances from one another, they can remain in touch with the conditions of the supply of and the demand for the commodity in question, by means of letters, telegrams, telephones, or wireless, there will be an equally strong tendency for the price to remain uniform. So, a market in Economics is defined as an area or region, where buyers and sellers of a commodity are in so close a contact with one another that its price tends to remain the same throughout this whole area or region.

There is then not much difference in the meaning of market as ordinarily understood, and that given to it in Economics, except that it is used in a very much extended sense. It may be confined to a city or a district, or it may extend to a whole Province or a country, or even the whole world. The one important condition of a market is that, the price of the commodity remains more or less uniform in the whole market. Bricks have a very narrow market. They can be bought and sold only within a very restricted area on account of the heavy cost of transportation. Sometimes the special produce of a locality may be in demand throughout a whole district, as melons of Barnawa and Mahalwala in Meerut district. They are said to have a whole district as their market. Melons of Lucknow, mangoes of Benares, Leechees of Dehradun, Guavas of Allahabad, furniture of

Bareilly and printed cloth of Jahangirabad etc are in demand, more or less throughout the whole of U, P and have, therefore, a Provincial Market. The utensils of Moradabad, the fruits of Kashmir, piece-goods of Bombay, oranges of Nagpur, Bengal Chemical products, Cawnpore woollen goods, and numerous other commodities have a country wide market. Articles like wheat, cotton, gold and silver are demanded throughout the whole world, and have, therefore a world wide market.

The Extent of the Market The extent of the market for a commodity depends upon the fulfilment of a number of conditions. They are given as under

(i) **High value in small bulk** The most important condition that determines the extent of the market for a commodity is that it does not occupy much space but is sufficiently valuable. Articles like gold and silver are highly valuable and occupy very little space in relation to their value. They are therefore, best fitted to command a world wide market. Bricks, or wood fuel, are just the reverse of the former. Both occupy large space, and possess very little value. Consequently, their market is restricted only to localities in their immediate neighbourhood.

(ii) **Extensive demand for the commodity.** When a commodity is demanded by a large number of people, there is every likelihood of its commanding a wide market, if other conditions are fulfilled. Wheat and cotton, and many other articles are demanded in every country of the world. The extent of their market is accordingly very wide. Articles that are demanded by very few, and satisfy only special tastes cannot command a large market.

(iii) **Large sources of supply** If a commodity is produced at numerous places, and its production is not restricted only to one place; its market will be more extensive. Rare paintings, or other curios, do not command a wide market as the sources of supply are restricted.

(iv) **Sampling and Grading** The commodity should be such that it can be exactly described, sampled and graded. Buyers, who are at a distance, always like to know exactly what they are going to buy. As the market is not limited to a definite place, the commodity in question cannot be seen and examined by the potential buyer. If it can be exactly described, or a sample can be sent, or merely a number is quoted which gives the buyer a correct idea of the thing, its market will become very wide. Many articles of world wide demand have now begun to be graded. A distinctive number or mark is assigned to an article possessing definite attributes. The buyer to whom the number is quoted knows exactly what he is buying, and the seller knows exactly what he is selling. The development of markets with the help of sampling, and grading requires a great deal of business honesty and integrity. If there is even a slight difference between the thing shown as sample, and the thing supplied, or if a wrong number

is deliberately supplied, further transactions become difficult, and may cease altogether, and the smooth progress of trade and commerce receives a serious setback.

(v) **Durability.** If the commodity is such that it cannot easily bear transit, and is breakable or perishable, its market will not be wide. Fresh fruits, fresh fish, dairy produce, and very delicate articles which are not easily transportable, do not command a wide market. In recent times, however, very great progress has been made in the science of packing. Special devices, like cold storage, have been adopted to pack perishable articles like fruits, fish etc. Now they are not spoilt in transit so soon as they used to be some time back. Moreover, with the development of fast aerial traffic, even dairy produce from Denmark can be easily sent to England. Milk, butter and eggs are sent in aeroplanes from Denmark to England and other places and are as good and fresh when delivered as if they were produced in the next door factory. Even in big Indian cities and towns milk has now begun to be supplied from villages situated within a radius of 10 to 15 miles by people on bicycles. This is, however possible in case of such villages only, which are situated near about a 'pucca road' leading to the town.

So, it may be said in conclusion that articles of every day use, which are demanded and supplied extensively, are of high value and small bulk, do not suffer in transit, and are easily describable, command a wide market.

Time Markets. This is a purely economic notion. The purchase and sale of a commodity can either be viewed in relation to place (place markets) or in relation to time (time markets). In the previous section we have discussed the former, we now discuss the latter.

(a) **One day market.** When purchase and sale is confined only to the supply available in a market on a particular day, the market is called 'a day market'. The period is so short that the supply of the commodity cannot be increased, at least on that day, while the total demand for it cannot be satisfied with the amount available in the market. As with a rise in the demand the existing supply cannot be increased, so with a fall it cannot be withdrawn. The market for fresh water fish, or *Desi* mangoes, or other fruits, is usually confined to a day. If, for any reason, the demand suddenly rises, the amount of fish or mangoes in the market cannot increase. The result is that the increased demand has to be satisfied with the existing supply, and the poorer or more considerate buyers have to go unsatisfied, or only partly satisfied. On the other hand, if the demand suddenly declines, the existing supply has to be sold, in spite of the fall in demand. In order, therefore, to attract people, who, either do not usually purchase the commodity due to high price, or purchase only in small quantities, the prices will have to be lowered, so that the whole quantity may be disposed of. The nature of the commodity being perishable, it cannot be withheld from the market, till such time when conditions of demand improve.

(b) Short period market. If the increase in demand persists for a time, long enough for fishermen or fruit sellers to increase the supply of the commodity by a little more activity on their part, there may be a slightly better adjustment between demand and supply, than it might be possible on the market day, when the supply could not be increased at all. Encouraged by the tendency of a rise in demand, fishermen would like to go farther and deeper, and try to increase their catch, with their present equipment. The fruit sellers will also go to out-of-the-way, gardens, to increase their supply for coping with the increased demand, as far as possible. In this way the supply will certainly increase, but not usually in proportion to the demand. This is a short period market, where the adjustment between the supply and demand is not complete, but is also not totally absent, as it was on the market day.

(c) Long Period Market. If the increase in demand assumes a more or less permanent form and comes to stay, as would be the case when more people permanently take to fish eating, or develop the habit of taking fruits every day after meals, the adjustment between supply and demand of fish or fruits or of any other commodity will become easier as there is now sufficient time for adjustment. Other labourers take to fishing, and the number of fishing nets also increases. Fruit trees are more carefully looked after, and gardens, situated even in the most interior parts of the region begin to be exploited. Labour from other occupations begins to be attracted, and so, when a sufficient period elapses, there is no divergence between the amount demanded and supplied. The adjustment between the supply of an article and the demand for it, after the expiry of a time long enough to enable labour and capital to adjust themselves to the demand, is the distinguishing feature of a long period market.

(d) Secular Market. The process of adjustment between supply and demand goes on continuously. Sometimes, and in certain cases, these movements last for a whole generation, and come into effective operation after very long periods. New generation of fishermen may, for example, come into existence with highly improved nets, and a more scientific way of exploiting fisheries. Fresh plots of land may be withdrawn from agricultural purposes and planted with fruit trees, thus bringing about a permanent increase in the supply of fruits. A better process of manuring and watering fruit trees may result in an increased supply from existing gardens, and new methods of packing may extend the market for fruits. Such changes take place over long periods, and play their part in bringing about adjustment between supply and demand. These are the characteristics of a secular market.

Balancing of demand and supply The most fascinating, and at the same time the most important, part of the study of Economics, is that which deals with the determination of value, also

known as the balancing of demand and supply. The theory of value, or the theory of price, is the central problem of economic theory. Economics deals with wealth, wealth consists of articles possessing value. So, the theory of value is really a vital part of Economics. Various theories of value have been advanced from time to time, and every economist of prominence has added something of his own, while discussing the theory.

It seeks to explain why price is demanded and paid for a commodity, and why differing amounts are paid for different commodities and services. Whenever a certain person wants to purchase a commodity or a service, he finds himself under the influence of two sets of forces. One is the desire to possess this commodity, because of the satisfaction it is likely to give him. The other is the disinclination to part with his money, which may be used elsewhere and perhaps in a better way, but without which it is impossible to obtain the commodity. A certain amount of sacrifice is necessary to get a corresponding amount of satisfaction.

A simple illustration will give an idea of the working of every man's mind when he is on the point of making a purchase. A boy climbs up a fruit tree and begins to pluck the fruits off the branches, one by one. When he climbed up the tree, the desire for fruit was very great in his mind. But after sometime he finds that with the consumption of each successive fruit, the intensity of his desire for further fruits gradually diminishes. Side by side with this, he begins to experience a little discomfort on account of his awkward position on the tree, and also due to a sense of fatigue. He still continues for some time to eat the fruits though with a rapidly declining addition to his satisfaction and ultimately he feels that additional fruits do not give him as much satisfaction as the passing of an additional minute causes him fatigue and concern at his absence from home. So he gets down from the tree and runs back home.

In this simple illustration, two important laws of Economics are involved—laws which are of great importance in understanding the theory of value. One is the law of desire or utility; and the other is the law of aversion or disutility. The law of utility says that with every increase in one's consumption or use of a commodity, its utility decreases. As the boy continues his consumption of fruits the additional utility begins to grow smaller. The law of disutility says that as a person's amount of work increases the disutility or dissatisfaction—which in this case is the fatigue caused by the work—also increases. As the time spent by the boy over the tree increased, the disutility of the work also increased. These two tendencies work in opposite directions. One begins from high up, and continues to come down the other starts from below, and continues to go higher and higher up. Consequently, there must be a point where these two tendencies, in their respective courses, meet, and pass each other. The point at which they meet is of very great theoretical importance in

Economics, especially in the discussion of value and allied problems

Now let us revert to affairs with which we as grown-up men, are more familiar. We want to purchase an article, which we hope will give us a great deal of satisfaction. But to obtain it we have to part with a number of rupees, which means sacrifice and a certain amount of dissatisfaction. But we purchase the commodity, as we feel that the amount of satisfaction derived out of it will be greater than that to be lost by parting with a number of rupees. With the purchase of the second article, of the same nature, we find that the expected satisfaction has so far diminished and the dissatisfaction at the additional expenditure of money so far increased, that both have become practically equal. However, we decide to have the other article also. But when the seller presses us to get even the third article, we are so definite in our mind about the very little additional utility of the third article, and the very great disutility caused by the expenditure of an additional number of rupees, that we curtly refuse to accede to his request, and finish our purchases of that article.

The notions of utility and disutility are psychological, and so subjective. They refer to the feelings of a man, and have no direct relation with any commodity or object. But it is difficult, almost impossible to measure and compare the strength of these feelings with each other without any objective measurement. Money has been adopted as the best available measure of utility or satisfaction. We measure a man's intensity of desire for a thing by the amount of money that he is prepared to give for the satisfaction of that desire, and his intensity of aversion for a certain thing by the amount of money which he is prepared to pay to save himself from that undesirable thing, or which he demands as a recompense for overcoming his aversion.

To work or labour is always irksome. But pay a person some thing, and he will overcome the aversion for work. He will begin to compare the satisfaction which he hopes to derive from his wages, with the dissatisfaction or fatigue, caused to him by his work. If the former is greater than, or even equal to, the latter, he will accept the offer, and begin to work. Again, spending money, certainly means so much less money for the future. It is a loss, and causes disutility, or dissatisfaction. But if in return for this money, a person expects to get any article of wealth, which is likely to give him satisfaction, he will at once begin to compare the satisfaction of the incoming article with the dissatisfaction of the outgoing money. If the former is greater than, or at least equal to, the latter, he will not mind spending it.

Money is, therefore, a measure both of utility and disutility. It is, undoubtedly only a very rough measure, and does not always

give correct measurements and results. Sometimes it absolutely misleads, if too much reliance is placed upon it. But with all these defects, it is perhaps, the best available measure. No other measure has been suggested as yet, by votaries of other sciences and arts. In our subsequent discussions therefore, we will adopt it for what it is worth, not forgetting, however, that it is not always reliable.

Throughout the greater portion of his life, a man is concerned with questions and problems of balancing efforts and sacrifices involved in a particular course of action, with the rewards or return that he expects to derive out of them. Every day of his life, he is engaged in balancing the advantages and disadvantages of even the minutest details of his activities. At one and the same time he may find himself rent between a number of alternative courses of action with their attendant advantages and drawbacks. Whether to go on a drive with friends, or to take a solitary walk, or to listen to the radio, or to have a family chit-chat, or to read an interesting novel, or to make a long overdue return call—these, and numerous other alternatives, come up for examination and final selection before every person. Adopting one out of a large number of alternatives means that the person concerned has carefully examined the utility of adopting each alternative with the disutility of rejecting another. He is expected to have made his final choice only when the amount of utility or satisfaction from the selected alternative is greater than it could be possible from any other alternative.

On such occasions elaborate calculations do not enter the mind. The whole thing is more or less a sort of guess work, a rapid self examination in which quick responses are needed. There is always a continuous comparison between greater and lesser satisfactions, and a contrast between satisfactions and dissatisfactions. More often a direct comparison in a man's mind between two courses gives better result, if he is a trained man, than an indirect one, through an objective measure. An organiser can solve such problems in a very short time, as his mind has developed that keenness which is demanded on such occasions.

CONDITIONS OF EXCHANGE

Two sided monopoly In every exchange there are two parties the buyer and the seller. Such exchanges take place under different conditions. Three such conditions can be marked out. One is two sided monopoly, the other is one sided monopoly or competition and the third is two sided competition, under the first condition each party has a monopoly, either of sale or purchase. In one case it means that the commodity sold by one party is not available elsewhere, and in the other that there is no other buyer except the party in question. This is called a two-sided monopoly of which instances are very rare.

An illustration may make the notion clearer. Suppose all skilled labourers whose services are needed in manufacturing a

commodity, form themselves into an organisation, so that no single labourer can enter into negotiation for wages with any employer except through representatives of the organisation. The employers, who are the buyers of this labour cannot get their services except through this organisation, which included all labourers qualified for the work. This may be regarded as the monopoly of sale. On the other hand, just as the labourers have organised themselves into a labour organisation, the employers also form their own association. They also decide not to negotiate with labourers, or their representatives, as individual employers but decide to deal with them through their association. They also decide that when a rate of wages for a particular type of labour is fixed, no individual firm should make any change in it at his own initiative. This may be called a monopoly of purchase.

So, on one side there is a labour organisation which alone can sell labour, and on the other there is an employers' association which alone can buy or hire it. Ultimately, it becomes a case similar to that between two individuals, one of whom is a buyer and the other a seller, there being no other buyers and sellers available just then or likely to appear for a considerable time to come. Cases of double monopoly are not usually met with except under conditions assumed in our illustration. They are also not of very great practical importance, though certainly interesting.

One sided monopoly or competition. The other condition of exchange, which we very often come across, is that in which only one party has a monopoly, while the other has none. Usually, the party having a complete control over the sale of a commodity possesses a monopoly. In such cases there can be no competition among sellers, because either there is only one seller, or other sellers are under the influence of one important seller. But there is a keen competition among buyers of the commodity. The producer has, consequently, a great advantage over the buyers. He can exploit them due to the intensity of their desire for the article which they have to submit to this exploitation and are at a great disadvantage. Such cases are not rare and are becoming more frequent. Monopolies, called trusts and pools, are growing in importance in modern world, especially in countries like America and Germany. In other countries also this tendency is growing, and with the development of rationalisation the tendency to eliminate competition by mutual understanding has become more prominent.

The other case, when not the sellers but buyers of a commodity possess a monopoly of purchase, and the sellers compete among themselves, is of very rare occurrence. Instances can be given when only one country has a demand for a particular article, which however is produced by a number of other countries. India, for example, has a monopoly of purchase in the case of *Dhoties*, ordinary types of caps, glass bangles, particular types of piece goods, and so on. But although the country is one, the

buyers are many, and so, such a monopoly of purchase cannot be really effective.

Two sided competition. The most common type of exchange is that in which both parties compete with each other, and the different members of each party also compete among themselves. There are many farms, factories and firms where articles are produced and also many people who purchase them. On one side, there is competition among numerous producing agencies on the other there is an equal competition among the many consumers who want to acquire them. Each producer wants to charge as high a price as possible, but on account of competition of others cannot do so. So, different producers share among themselves, in larger or smaller proportions, the whole custom of the market. If anyone rises in the scale, it is only due to some special merit of his own. Also due to competition among buyers each one is anxious to get the commodity at as little cost as possible. Man always likes to buy cheap, but as the number of buyers is very large it is not possible for any one to buy cheaper than others, just as it is not possible for anyone to sell dearer than others. —

These are then the three conditions of exchange which we find in the modern world. What has been said above as regards commodities, holds true also of services, and with a little care, can be applied to such cases with the same result.

In discussing the theory of value or price we have to explain firstly, why a person pays a price for a commodity, secondly, why the other person demands a price for it; and, thirdly, how these two persons come to terms with each other and an exchange takes place. Here we will be concerned with that condition of exchange in which there is two-sided competition. The other case, that of one-sided monopoly or competition, will be discussed later on, under monopoly value.

Utility. The first thing that we have to explain is why a certain person is prepared to pay a certain price for a commodity. The answer is simple. He has a desire for it, and in order to fulfil this desire he is prepared to make some sacrifice. This sacrifice, now-a-days, takes the form of payment of money. Therefore, in order to satisfy this desire, he is prepared to pay money, or in other words, he is prepared to pay a certain price for this commodity. It follows that the higher the utility of a commodity to a person, or the greater the intensity of his desire for this commodity the higher would be the price that he will be prepared to pay for it. Consequently, every man has got a more or less vague idea in his mind, regarding the amount of money, or the price, that he would be prepared to pay for a certain commodity, rather than go without it. It may be mentioned here that it is not only the intensity of the desire that determines the price that a man is prepared to pay, but also the means at his disposal. If he is a comparatively poor man, then with all the

intensity of his desire for a certain thing he may not be in a position to offer much for it. Keeping this proviso in mind, we may say that every man has in his mind, a maximum limit up to which he is prepared to go in the matter of the purchase of a certain thing. A person, therefore, is prepared to pay a price for a commodity because it is likely to satisfy his desire for it.

Cost of production The second question is why the sellers of an article demands a price for it. The answer to this question is also not difficult. It must have cost him something to produce or acquire it. If so, how can he give it to some one else, without charging him at least as much as it cost him to produce or acquire it. He may of course, charge nothing above this cost of production, or acquisition, but under ordinary circumstances, he would not be satisfied with anything less than that.

Different Utilities and different costs of production It often happens that the cost of one person is different from that of another, and so one person may be prepared to sell a thing at a different price from another. It is also not only among sellers that different men are prepared to sell articles at different prices due to a difference in the costs of production. The same is the case also among buyers. They, too, are prepared to offer different prices for the same commodity, due to the varying intensities of their desires for it and also due to the differences in their pecuniary means. How, then, is the price fixed?

Fixing of price. We said in the beginning that the buyer has a maximum, determined by his utility above which he will not ordinarily go, in the same way a seller has a minimum, determined by his cost of production, below which he will not ordinarily go. So, there are two limits, the upper one and the lower one—the buyer's maximum, and the seller's minimum. Between these limits there is a gap—a no-man's land—and it is somewhere here that the price is determined. At what point the price will be determined depends upon a number of factors, a few of which are given below.

- (a) The number of buyers.
- (b) The number of sellers
- (c) Their relative bargaining skill and strength.
- (d) The nature of the commodity, that is to say—whether it can be kept back for sometime, or not.
- (e) The intensity of the desire of the buyers to buy, and of the sellers to sell, the commodity
- (f) The monetary position of the different parties
- (g) The presence or absence of substitutes for the commodity in question.

When all these factors have had their full play, the price of the commodity is fixed for that time,

Market Demand and Supply Although commodities are always bought and sold by individual buyers and sellers, price is not determined by the action of a single buyer or seller or even a few of them. As a matter of fact all buyers and sellers of an article take part in the determination of its price. At any one time, there are some producers of a commodity who are prepared to sell it if they get a fair price. This price usually differs from one seller to another, because the conditions under which different sellers produce it are sometimes slightly, at other times vastly, different. The cost of production of the same commodity being different to different producers, the price which may induce one set of producers to begin to produce the commodity may not be enough for another set to start production. The same is the position as regards the buyers. Different persons have different tastes and inclinations; also their pecuniary means are very different. The same commodity therefore, may be highly valued by some but may not be valued so much by others. In technical language it is said that the utility of a commodity is different to different people.

Consequently, at a particular price there is only a particular number of people prepared to buy the commodity. But there would be a large number of other men who would not like to come forward unless there is a further decline in price. So we find that in a market at any particular time there are only some sellers who are prepared to sell the commodity at a particular price. Also there are only some buyers prepared to buy it at that price. The question arises, again, how will the price be determined so that a definite amount of the commodity may be offered and the same amount purchased at a particular price. The answer is that the price will be finally fixed in the market on that point at which that amount of the commodity can be supplied which people are prepared to buy at that price. Let us give some figures which may elucidate the point to some extent.

Supply.	Price per article	Demand.
10,000	Rs 2 0 0	500
5,000	„ 1 8 0	2,000
4,000	Re. 1 0 0	4,000
2,000	„ 0 12 0	6,000
500	„ 0 8 0	10,000

The above figures have been selected at random, but they bring out an important point. When the price is Rs 2 per article, 10,000 articles can be supplied, because the price is high enough. But for that very reason, not more than 500 articles can be disposed of at that price. Under this condition, there is no balancing between demand and supply. Those who had produced 10,000 articles in the expectation that it would be sold at Rs. 2 per article are very much disappointed, and some of them whose cost of production cannot be reduced further than Rs 2 per article withdraw from the field altogether. Next time,

discouraged by previous experience, only 5000 articles are produced, in the expectation that the price may be 1/8/- per article, if not Rs. 2. Although owing to this fall in the price, a large number of buyers come forward, and the number demanded is now 2,000 instead of 500, there is no balancing between demand and supply as yet. Out of 5000 articles offered for sale at one rupee and 8 annas per article, only 2000 can be taken up. Even this time a number of producers have to go disappointed. Next time only 4000 articles are produced in the expectation that the price would not be less than rupee one per article. Encouraged by a still further fall in the price more buyers come forward and the demand increases to 4000. At this point, after all there is a perfect equilibrium between the demand for, and the supply of that commodity. At Re 1 per article, 4000 articles are supplied and 4000 are also demanded.

Let us examine the illustration a little further. If the price of the article is lowered to -1/2/- the number of buyers may increase to 6000; but more than 2000 articles cannot be produced at such a low price. If the price were pushed still further down, and were fixed at 8 as. per article, 10000 such articles could be purchased but not more than 500 could be produced. So, at a price above Re 1, there is no balancing between demand and supply; in the same way there is also none below that price.

Marginal Buyers and Sellers. This is how price is determined in a market where a large number of buyers and sellers compete with one another, forcing the price up and down as the case may be. A careful study of the figures given above will show that when the price was as high as Rs. 2 per article, at least 500 articles could be disposed of. This means that there are buyers who do not mind paying Rs. 2 per article, but would not like to go without it. On the other hand, when the price became as low as 8 annas, there was a possibility of at least 500 articles being produced even at such a low price. This means that there are some producers whose cost of production is so low that they can afford to sell this commodity even at 8 annas. With a rise in prices they clearly get a surplus gain. We also find that the price of the article was fixed neither at Rs. 2, nor at annas eight; which meant that the upper class of buyers and the most efficient class of producers have not determined the final price. In the final fixation of the price buyers of more moderate means have also to be attracted by lowering the price, on the one hand, and less efficient producers have also to be recompensed by raising the price. So we conclude that the marginal class of buyers and the marginal class of sellers play a decisive part in the determination of the price.

Later developments in the theory of value ridicule the idea of this fractional notion; but we will not give up the old tradition all at once and will say that the balancing of demand and supply is achieved at that price where the marginal expenses of production of the seller of the 4000th article are equal to the

marginal utility of the purchaser of the 4000th article. So, according to the theory of value given in modern books, *price is determined at that point where marginal expenses of production of the commodity are equal to the marginal utility of the marginal buyer.*

At this stage it may be convenient to explain two terms which are very often used in Economics the demand schedule and the supply schedule. Demand schedule is the list of prices at which different amounts of a commodity are demanded at a particular price. The supply schedule is the list of prices at which different amounts of a commodity are supplied. In the table of figures given above if we take the amount demanded and the price, we get a demand schedule; if we take the amount supplied and the price, we get a supply schedule. If we plot curves based on these schedules, we get demand curves and supply curves.

Time element in price. The determination of price in a market is considerably affected by the element of time. If there is sufficient time for the supply to increase in response to the increase in the demand, or for the demand to adjust itself in relation to the supply, the value will be fixed differently than when there is no such time. Marshall has done a great service to Economics by introducing the element of time in the theory of value.

Market Value. On a market day the supply of a commodity is more or less fixed. The demand for it may be high or low but the supply can neither increase nor decrease. On a market day, for example the number of mangoes of a particular type in a town may be say ten thousand. This is, let us suppose the usual number demanded at a particular price, and the whole supply is generally disposed of. However if on account of the sudden death of a great man a *hartal* is declared on a particular day, and the market is closed the mango-sellers may find it difficult to dispose of their mangoes at the usual price. Mangoes belong to the class of perishable goods and so cannot be kept back or stored for a future date. The whole supply, therefore, has to be disposed of, even though the price may have to be lowered. Accordingly, the price will have to be lowered to such an extent that customers might be attracted inspite of the *hartal*, and some others might be induced to increase their purchases. In short, the total supply will be disposed of only after the price is considerably reduced.

In such a case the price has to be lowered, if the demand falls irrespective of the seller's minimum, which is determined with reference to the cost of production of the article to the seller. As in the case of a fall in the demand the price has to be lowered, in the same way in the case of a rise the price is raised. If there is a sudden increase in the demand for mangoes due to a big *batat*, the existing supply cannot increase and so cannot suffice to meet the increased demand. The price will have to be

raised in order to discourage marginal purchasers from purchasing them. The poorer purchasers withdraw from the field, leaving the richer to appropriate among themselves the existing supply. The upper class of buyers purchase mangoes and the *baratis* also have them all right, but the poorer class of people go without them on that particular day. They have to wait for the return of the normal price the next day or after 2 or 3 days.

On a market day, therefore it is only demand that determines price. The force of supply or the cost of production, has practically no effect upon it. This is the characteristic of market price.

Short Period Price. If the rise or fall in the demand for a commodity lasts not only for a day or two, but persists for sometime, it will be possible to make a slight adjustment in the supply, so that it may come to some extent to the same level with the demand for it. This adjustment, however, will only be a forced one. Reverting to our previous illustration it may be said that, if the increase in the demand for mangoes shows a tendency to persist, more mangoes will be brought from distant and out of the way gardens to the locality where the demand is growing. As greater efforts have to be made by fruit sellers to get this increased supply, they will certainly charge a price higher than the normal. So the short period price, although not as high as the market price when demand suddenly increases leaving no time for the supply to adjust itself in the least to the demand is still higher than the normal price. The time necessary for an adequate adjustment is not yet available. What holds good of a rise in price, also holds good of a fall.

Long Period Price. But when time is long enough for the full forces of supply to exert themselves, there is a complete adjustment between the new demand for and the supply of this particular article. When the increase in demand becomes permanent on account of changed tastes or views of people, the amount of production is adjusted so as to meet the demand of the community for the commodity at the new level. More of it is produced, and the price is now not greater than the marginal expenses of the last units of this newly adjusted supply. This is called long period or normal price.

Reverting to our old illustration we may say that, when there is enough time for the forces of supply to exert themselves, the supply of mangoes will so far increase that the demand is completely satisfied by the new supply brought into the market. Neglected gardens will begin to receive attention, and existing trees will be looked after more carefully with a view to increase their productivity. More people may also begin to take to mango growing and on account of competition among themselves may bring down the price more or less to its old level.

Secular Price. There is not much difference between a long period price and secular price, except that the period

allowed for the latter is even greater than that for the former. In secular movements of prices there is time enough even for factors of production to be increased or withdrawn, and so perfectly adjusted to the demand for them. New gardens, for example, may be planted, and a new generation may learn the art of horticulture.

Brief History of the Theory of Value The earlier economists laid great stress upon the supply side of the theory of value. Their explanation was simple enough. They said that value was determined by labour. If more labour is expended over the production of a particular article, its value would be greater. Labour was not only the cause, but also the measure of value. This simple theory was no doubt applicable to the most primitive conditions of economic life. But we know quite well that there are very few articles that are produced by labour alone. Labour is now greatly aided by capital and directed by organization. Land also contributes much towards this production and so should be remunerated before value of any commodity is determined. Other economists substituted the phrase 'cost of production' in place of labour. This was a more correct view, and more in accordance with actual facts, but it was only a one sided explanation.

Only the supply side can be satisfactorily explained by the cost of production theory, but not the demand side. If it costs a certain person a large amount of money to produce a certain article, there is no reason why people should offer a high price for it for this reason alone, unless they like it very much. Not satisfied with the cost of production theory of value, economists in different parts of the world hit upon the idea of utility as a satisfactory explanation for it. Jevons, Menger, Walras and Clark, all at one and the same time, came out with a new explanation. They attached very great importance to demand side and said that value was determined not by the cost of production, but by its marginal utility. This was a purely subjective, or psychological explanation of value, in which Austrian economists played a prominent part. But they entirely neglected the supply side. If a man derives a great deal of utility from a certain commodity, it is not always necessary for him to pay a high price for it, which depends upon its cost of production also. We pay nothing for air or water; very little for iron, salt, coal, and food stuffs, but very much for diamonds, rubies and pearls. So it is not only the utility of a thing that plays an important part in the determination of value of a particular commodity, but also its cost of production.

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blade cannot cut a piece of paper, in the same way, neither the cost of production alone, nor utility alone can determine price.

It is, however, possible that of the two blades, one may be held in check, while the other may be kept moving. In such a case it will not be right to say that only one blade of the scissors is working. As a matter of fact; the paper is cut at the point where both the moving and the stationary blades meet each other. We can only say that one blade is active while the other is passive, but both are present and contribute their respective share in the work.

A case like the above is presented when on a market day the supply of a commodity remains fixed, but the demand goes up suddenly. In spite of the increase in the demand, the supply cannot increase; so the price is determined only with reference to the marginal utility of the commodity to buyers, or with reference to the demand side alone. The supply side represents the blade which though stationary is certainly present and in position.

Modern ideas on value The earlier theories of value represented only one side of the picture. The earlier economists did not very well comprehend the complicated nature of this problem. Some of them took up for consideration only the supply side and began to attach great importance to cost of production. On account of this over emphasis upon cost of production there ensued a reaction. Jevons and others accordingly proved equally one sided in their view and regarded utility as the only determinant of value. In a letter to his friend Jevons wrote that he had, after a great effort, hit upon the only right theory of value, and that his would be the final word upon it! Little did he realise that very soon after, his exposition of the theory would begin to be regarded as one sided as that of the earlier economists.

Marshall did not give any original theory of his own. What he did was to combine the two points of view, namely, that of the cost of production, and utility. He elucidated and elaborated many important points which had been left vague and unexplained by the authors of various theories. For example, he analysed the notion underlying the cost of production. He also gave a further analysis of the notion of utility and brought out the importance of marginal utility to a still greater extent than was done even by Jevons and Austrian economists. By introducing the element of time, he cleared many points of the theory which were not so clear before.

Economists who have come after Marshall, have given a deeper thought to all these problems and have subjected the theory to a searching criticism in its various aspects. On the cost of production side, it is said, and rightly, that in many cases it is really impossible to find out the cost of production of a

particular commodity. There are very few commodities which are produced independently now-a-days. There are, what we call, a number of bye-products. Cases of joint supply are more frequent than those of independent supply. Under these conditions it is impossible to find out correctly the separate cost of production of several articles produced jointly. The whole thing is a guess work, and nothing more. There is nothing definite about it, much less mathematical. No doubt, there are different theories pertaining to joint demand and joint supply, composite demand and composite supply; but except giving a general guidance, and a sort of superficial explanation, the demand and supply theory of value does not give a clear explanation of the phenomenon of value.

Regarding the demand side the matter is still more uncertain and vague. Utility is a subjective notion, and is measured by money. Money, as every body knows, is not an exact measure of utility. This is also a great hindrance in the explanation of the theory.

As a matter of fact, it is very difficult to give a definite explanation of social phenomena of different kinds, economic or non-economic. Social sciences - and Economics is one of them—deal with man, who is the most difficult to study, and is highly erratic in his actions. Moreover, on account of the development of organisation, both among labourers and employers, various social groups have acquired great prominence. Consequently, the value, not only of commodities, but of services also, has begun to be affected, to a growing extent, by the bargaining power of different social groups. Modern economists therefore, do not pretend to give a definite and perfectly clear explanation of this phenomenon for the obvious reason that no such explanation is possible to be given. They only indicate its broad features by first of all drawing the attention of people to the upper limit to which a man can go in offering a price for a certain thing. This has been referred to elsewhere as the buyer's maximum. The other is the seller's minimum. Between these two limits there is a wide gap. Modern economists do not pretend to bridge it definitely. Value may be fixed at different points between these two limits. Even cost of production has now begun to be affected by utility, because producers of goods, finding that their commodities do not command a good sale, adopt measures to bring down the price of the article. Costs of production are accordingly lowered to bring price within reach of masses. So cost of production not only affects price but is itself affected by it.

Variation in price with an increase or decrease in demand —

With an increase in the demand for a commodity there is a tendency for the price to rise. When price rises, there is encouragement for old producers to produce more, and for new producers to come into the field, on account of the possibility of larger profits. If a large amount of any commodity is to be produced

under the influence of an increase in the demand for it, a very important problem arises. We have to examine the conditions under which the production of that particular commodity is going on. If the commodity, for example is being produced under diminishing returns or increasing costs, the effect of a permanent rise in the demand of that article, and a consequent increase in its production will be the ultimate rise in its price. We know that if a commodity, subject to diminishing returns or increasing costs, is produced in larger quantities, the cost of production per unit will increase, that is what diminishing returns or increasing costs really mean. So, our first conclusion is that if the demand for a commodity which is subject to diminishing returns, increases its price will rise in the long run.

If the commodity is subject to constant returns, or constant costs, its price will neither increase nor decrease with an increase in the demand for it. This is our second conclusion. There is, however, a large number of commodities whose costs of production diminish with an increase in their supply. Such are manufactured articles. So if there is an increase in the demand for such articles, and they begin to be produced in larger quantities, the ultimate result will be a fall in their price, due to economies of large scale production and of the production of division of labour, and specialisation of the machinery. Our third conclusion, therefore, is that if there is an increase in the demand for a commodity which is yielding increasing returns, or which is subject to diminishing costs, the prices of the commodity will fall in the long run. If there is a fall in the demand the result will be quite the reverse in the first and third cases, but will remain the same in the second case. That is to say, if there is a fall in the demand for an article which is being produced under diminishing returns or increasing cost, its price will fall in the long run. If there is a fall in the demand for an article which is subject to increasing returns or diminishing costs, its price will rise in the long run. In the case of constant costs, just as there was no effect upon price in the case of increase in demand, there will be no effect of a decrease in demand.

Speculation—While explaining production, it was pointed out that it really meant the addition of utilities to any commodity. This is done in three different ways. Firstly, by a change in its form; secondly, by a change in its place of consumption, and, thirdly, by changing its time of consumption. These three types of productive activities are referred to, in short, as the creation or addition of form utility, place utility, and time utility. Now, those who are engaged in giving time utility to commodities, may be simply traders and businessmen investing speculators or speculators. Their business is to purchase or acquire a commodity at a time when it is very little in demand, and to sell or transfer it at another when it is in greater demand. An illustration will make the point more clear.

At the harvesting time, food grains are plentiful every where in the country. Every cultivator is anxious to dispose of his crop to those who want to purchase it. The supply, at that particular time, therefore, is very large indeed. But the demand, if we confine it only to that of the *bona fide* consumers of the article, is uniform and constant, all the year round. They consume only the same amount of food grain in the harvest months as they do during the months when the sowing of next crop takes place. Under such circumstances there must be some others to purchase the vast quantity of food grains, and other agricultural crops that are offered for sale in the country by their producers. Those who take up this supply and without any attempt to withhold it from the market for any length of time begin to sell it as it is demanded are called traders or businessmen. They are holders of stock, not withholders. They purchase at a time when supply is very large, and demand relatively very small. They store the articles, undertake the troubles and worries that are incidental to keep bulky commodities in stock for a number of months, and invest large amounts of money which is locked up for several months. They also run the risk of loss if this crop gets spoilt on account of seasonal causes or other reasons. They continue to supply it to the market in dribbles, that is to say, in such quantities as are demanded every month or every day. Grain pits, or granaries, are arranged for, and in this way the entire supply of the country is stored up and distributed to the country, in the course of the full year. These traders perform a very useful service to the community and it is entirely wrong to criticise them if they earn profits by keeping the difference in the price of the commodity at the harvest time and during the course of the remaining months of the year, in their pockets. Investing speculators, however, purchase a commodity at a time when it is cheap and withhold it from the market for some time till it rises in price. Then they sell it and make profit by the difference. Speculators, however, may not purchase the commodity at all on the spot or at the time of the deal, but only undertake to purchase at a future date usually from one to three months. The seller also undertakes to sell at this future date. When this time arrives there is no exchange of commodity from one to the other, but only a settlement between the two based on the difference in price on the day of settlement. This is speculation pure and simple.

Even these speculators perform a service if they are experts in their business and are not rank outsiders. They have to keep in mind not only the quantity of the present crop, but also that of the future crop. If they find that the prospects of the future crop are not very bright, and that there is a likelihood of its being damaged for one reason or the other they begin to purchase briskly. They raise in this way the price of the commo-

dity and discourage, to some extent, its consumption. The existing quantity of the yield, together with the expected yield of the crop in the next year, is thus regulated so as to last for the whole period during the next year. If they do not keep in view the future prospects of crops, not only in their own country but also in foreign lands, and continue to sell the yield of previous years in the usual way, the country may suffer greatly, if any year's crop fall far short of expectation and demand. So, from year to year, these speculators so regulate the consumption of a particular commodity, by raising its price or by lowering it, if necessary, that there is no sudden rise or fall in its price.

They also keep in view, the events and happenings in other countries of the world. In the matter of dealings in commercial commodities they have a perfect organisation, and their knowledge is very great indeed. A good speculator in India, for example knows about the area sown under wheat in Australia, America, Russia, Argentina, Rumania and Hungary. He also knows enough about the condition of the standing crops, also about the conditions of demand in those countries, and of the whole world. It is only on the basis of such information that a real speculator can take steps to lower or raise the price of the commodity in which he deals.

The very great advantage of this, sort of speculation is the equalisation of prices from year to year, and from one month of the year to another not only in one country but also as between different countries of the world if the commodity is of a commercial nature. The price that is charged by a dealer for a commodity at present is, therefore, also related to its future price. There is almost a continuity of prices from day to day, and with the development of the means of transport and communication, the price of wheat in India today, is related to its price next year. Also its price now and next year in any one country is related to its price now and next year in other important countries of the world.

The stock exchange.—In the foregoing pages we took up for illustration an agricultural commodity, namely wheat; but speculation is not confined to agricultural commodities alone. It includes within its sphere all kinds of commodities which are bought and sold on a large scale, and are in demand in different parts of the country, and, sometimes in different parts of the world. In reality, only those commodities which have a very wide market can be the right type of commodities for purposes of speculation. In this respect, government securities, shares of first class companies, articles like gold and silver, and commodities like cotton, wheat, oil seeds etc., have a very wide market, and are the best types of commodities for purposes of speculation.

The stock exchange is an institution where different kinds of stocks and shares and government securities are bought and sold.

There are two classes of people that frequent a stock exchange, the brokers and speculators. Speculators are of two kinds, bulls and bears. Bulls are those who purchase shares to-day, in the hope to sell them after sometime when their price rises. Bears, on the other hand, are those who sell shares in the hope of repurchasing them after sometime when their price falls. The value of a certain share is, suppose, quoted at Rs. 100, on any day. A speculator thinks that after sometime its value will go up. So he purchases one hundred such shares. After sometime the value of the shares actually rises to Rs. 108 per share. He at once sells his shares and makes a profit Rs. 800 in this transaction. This man is called a bull speculator.

Views, however, may differ. If one person thinks that the value of a certain share will rise, another may think that it will fall. Taking up our previous illustration, a speculator supposes that the value of the share which is now quoted at Rs. 100 is likely to fall. So he sells these shares at Rs. 100. After some time his expectations come out true, and the value of the share falls to Rs. 95. He can now purchase them at a reduced price and earn a profit of Rs. 5 per share. Such speculators are called bear speculators. As a matter of fact, there is always a fight if we may use the term between bulls and bears. Speculative deals are always between them. Of the two parties one must be a bull and the other a bear. The one who buys for a rise is a bull and the other from whom he buys, or one who sells for a fall is a bear. One of the two must be right in his surmise and one must gain while the other must lose.

In most stock exchanges of the world there are only two parties, namely, brokers and speculators. As it is difficult for bulls to find bears, and *vice versa* speculative transactions take place only through brokers. But in London Stock Exchange there are three parties, namely, speculators, brokers and jobbers. Brokers deal with jobbers. A jobber quotes two prices, a lower price at which he is prepared to buy and a higher at which he is prepared to sell. After giving his price or rather two prices he is bound either to buy or sell as the case may be. Speculators do not deal with jobbers, and the latter are prohibited to deal directly with speculators, except through brokers. It means that specialisation of functions, has been carried to a greater extent in London Stock Exchange than at other centres.

Unhealthy Speculation or Gambling — So far we have been dealing with that sort of speculation which is of the healthy type. The stock exchange helps a great deal in the transfer of money from one industry to another. If a person does not want to leave his capital in a certain cotton mill whose shares he had purchased sometime back, but wants to invest it in jute shares, he can do this through a stock exchange. He may write to a broker who will find out, or perhaps, has already a person, who is prepared to purchase cotton shares

which are offered for sale by the other. This is how capital moves. Only those shares are in demand which are expected to yield a better return, while those which do not yield good return are usually at a discount. The real position of a stock or share can be known to a large extent by its price quotation on the stock exchange. This quotation usually reflects the true position of the shares.

But the world is not so good as we have depicted it in the foregoing pages. Not all speculators are of the right and correct type. Many of them are no better than gamblers and speculation now-a-days is, truly speaking, another name for gambling. Those who are anxious to grow rich in a very short time, take to speculation without any previous knowledge of the technicalities of the business, or any preparation what-so-ever. These people jump into it and begin to speculate wildly. They purchase a certain commodity or a share at a particular price today, with no idea of an investment, but only with a view to make quick profit if the value of the share rises. They are guided by brokers who are more concerned with their own commission than with the profits of speculators or the well-being of the country. The result is that instead of keeping prices steady, this sort of speculation very often results in violent price fluctuations. The raw and inexperienced adventurers become very soon panic stricken and begin to sell as suddenly as they bought. If there is an upward tendency, hundreds of people come forward to buy and push up the price of the stock very high. With the commencement of the tendency to sell, there will be very few people sensible enough to withhold their stock, even for a brief period, to take a correct view of the situation. Sometimes, a few people having large sums of money, combine together, and make an attempt to acquire a complete control over the supply of a certain commodity or share, so that they may then be able to charge as high a price for this commodity or share as possible and make huge profits. This is called cornering. Many attempts have been made by Governments of different countries to check the abuses of this type of wild speculation or gambling, but they have not yet been able to devise any effective measures against it so far.

Some Complex Problems of Value—In the foregoing pages we discussed the problem of value under competitive conditions. We took for discussion cases which were quite familiar to us, and which were not of a very complicated nature. But there are certain problems which are not so simple, and are not so easily understandable. Although it is not within the scope of this book to go into the minute details of such problems, it may not be out of place to give a brief discussion of some of them.

Joint Demand—We demand a large number of articles for the satisfaction of our wants. This demand is direct for some articles,

and indirect for others. For the satisfaction of our hunger, for example, we demand loaves of bread, and a few other articles. Our demand, therefore, for these loaves of bread, and other articles of diet, is direct. Before getting loaves, however, we need a large number of other articles. Flour is necessary, also fuel, oven, big and small utensils, services of a cook, spices, clarified butter, and so on. Our demand for all these things is indirect. We want fuel, or utensils, or a cook, only because we want loaves of bread and other article of diet. All commodities and services which are necessary in the production of these loaves and other articles of diet, are said to be jointly demanded. Our demand for all these is, therefore, derived from our demand for loaves of bread.

Another illustration may be given. We demand a house. Now a demand for a house really means a demand for commodities and services which are necessary for its construction. Bricks lime, masons ordinary labourers, sand, wood, carpenters and so on, are all needed for the construction of a house. Consequently, our demand for it means a demand for all these commodities and services which are necessary for its construction. The demand for bricks and other such articles and services is, therefore derived from our demand for a house.

There are some interesting problems connected with joint demand. Let us suppose that for any reason there is a shortage in the supply of bricks. As a consequence the price of bricks will rise, but the question is to know the probable extent of this rise. There are certain conditions under which the check in the supply of any one of the several articles and services which are necessary in the preparation of a whole commodity may raise its price very much.

1. In the first place the factor should be such that it is very essential in the ultimate production of the commodity. Bricks are undoubtedly very essential in the construction of a house, especially in those places where stone is not available, and wooden houses are not in use. There is also no possible substitute for it at numerous places.

2. The finished commodity itself should be such that the demand for it is very essential, and cannot be satisfied in any other way. When population is on the increase in any big town or city, the demand for houses is more or less inelastic, and very essential. We know that there is no substitute for a house; so the second condition is also satisfied in the case under consideration.

3. Another very important condition is that the cost of the factors whose supply receives a check, should be very small proportionately to the total price of the finished product. This condition is not satisfied by bricks, as they form a pretty high percent-

age of the total expenses in the construction of a house. This condition is eminently fulfilled by jute bags, in which cereals and other commodities are exported. If people in foreign countries demand oil seeds from India, they also demand jute bags in which alone they can be exported. The price of gunny bags is very small in proportion to the price of oil seeds, say, a few annas. If, therefore, their price rises even by 100% no perceptible effect will be produced on the price of oil seeds. But if there is a great increase in the price of bricks the price of a house cannot fail to be influenced.

4. The fourth condition is that other constituents of the commodity are neither so essential, nor is there a paucity of substitutes in their cases with the result that if there is a small fall in their demand, their prices fall to a considerable extent.

We know, that it is not usual for all the conditions to be satisfied at one and the same time. If the price of one factor of production rises, or if the supply of any one becomes scarce, forces are set in motion which bring about a rise in the prices of other factors of production also. The whole notion, however, is interesting, and furnishes a sort of intellectual exercise.

Joint Supply Just as some commodities are jointly demanded in the same way many commodities are jointly supplied. If a cultivator produces wheat, he also produces straw along with it. If the purpose is to extract oil from oil seeds, oil cake is also produced in the process. Bye-products of a number of industries are all articles which are jointly supplied. This fact is not without interest.

England began to import wheat from the United States of America and India after the development of trans-oceanic navigation in the beginning of the 19th century. But obviously only wheat was intended to be imported, and not straw. So the competition was only between American wheat and English wheat. The latter suffered in competition against the former and so its price fell in England. But as regards straw, there being no import of it from America, the English cultivator raised its price to compensate him to some extent for the loss he had suffered on account of a fall in the price of wheat.

In America or India on the other hand, where wheat is grown not only to satisfy the local demand but also to meet the foreign demand there would be a surplus of straw after the wheat is exported. Consequently while the tendency in England is towards a rise in the price of straw and a fall in the price of wheat, in India or in the United States of America or any other wheat exporting country the reverse tendency comes into operation. There is a rise in the price of wheat, and a fall in the price of straw.

Thus it may be said that when several commodities are produced as a result of producing only one main article, it becomes impossible to determine exactly the respective costs of production of the several commodities thus jointly produced. It is impossible for example, to separate the cost of production of oil from that of oil cakes. We so calculate that the total price of oil and oil cakes might cover the total expenses of production of both.

Alternative Demand Alternative demand means that a person's demand for a certain thing can be satisfied by more than one commodity or, in other words, that the number of substitutes is quite large, so that either the one or the other can be taken up for satisfying the particular demand. Such commodities are tea and coffee different fruits and different vegetables. If a man has a demand for beverage, it can be satisfied by coffee or cocoa, although their respective tastes may differ to some extent and also there may be a slight difference in their medicinal properties. Vegetables, like *Ghia* and *Tori* satisfy practically the same demand. They act as substitutes to each another, although there is a difference in taste and perhaps in medicinal properties also. Oil is used at many places as a substitute for Ghee, either on account of cheapness, or sometimes, as in Bombay Province, due to certain climatic peculiarities. All these articles, therefore, are in alternate demand and are rivals to one another.

Alternative supply. When one commodity can satisfy a number of requirements, it is said to be in alternate supply. Milk for example, can be used either in making curd, or other milk products. Water can be used for purposes of drinking, bathing washing, gardening etc. A tract of land can be used either for growing wheat or cotton or sugar-cane or any other crop, provided that mechanical properties permit the raising of such products. It may be mentioned in passing that what has been referred to above as alternate demand, is called composite supply by Marshall, and that which has been called composite demand is called alternative supply. This is only difference in terminology, but there should be no confusion about it.

CHAPTER XIII. MONOPOLY.

Its meaning. The term monopoly is derived from two Greek words, *menos*, alone—*polein*, to sell. Its literal meaning, therefore, is the right to sell alone, or the sole right to sell. In its modern use the term is applied to the advantage accruing to any undertaking which has a power, however acquired, of fixing a price for its goods or services, in the knowledge that those who need them, cannot get them in adequate measure elsewhere.

Monopolies have been classified in different ways. We give below a classification which appears satisfactory. In this classification monopolies are divided into 4 classes (i) legal monopolies (ii) state monopolies (iii) natural monopolies and (iv) capitalistic monopolies.

(i) **Legal Monopolies** Legal monopolies are those which have been conferred upon people or institutions in accordance with the law of the country by the Government. Instances are patents, or copy rights. A man who has invented a particular type of machine or any thing, can get it patented so that no other person may be able to produce another commodity of the same design and character. Law comes to the rescue of one whose right of monopoly, legally secured, is interfered with by someone deliberately. Publishers of books acquire a monopoly of publication by securing copy rights. Such monopolies are very common in industrial countries of the world where new machines and new articles are produced almost every day. In countries like America, England, Germany, Italy, and France, legal monopolies are of great importance. In India, copy rights are numerous, but as far as patents are concerned they are not of very great importance, because for several reasons we have not been able to develop the initiative and originality needed for invention. For some time past the inventive genius of India has been lying dormant.

(i) **State Monopolies**—Salt, liquor, and opium are instances of state monopolies in India. The Government, has acquired these monopolies for the purpose of increasing its revenue, or to control their consumption. No one in India is permitted to manufacture salt, liquor and opium. Salt and opium are the monopolies of the Government of India, while excise is the monopoly of Provincial Governments. In every important country of the world, there are certain articles which the Government of the country has selected for monopolisation. The purpose of a state monopoly is either fiscal or moral. The production of salt is monopolised on fiscal grounds, that of opium and excise apparently on moral grounds, but the underlying basis in these cases, too, may also be a desire to increase state income.

(ii) **Natural Monopolies.**—Such monopolies come into existence either because of the limitation of supply of raw materials,

or for certain other natural causes Bengal possesses, in this sense, a monopoly of jute. There are, however, certain inherent causes on account of which natural monopolies come into existence. Such is the case with roads, railways, telephones, telegraphs, water works etc. There is no sense in having two water works in the same city; under the same management, or under different managements, unless on account of the growth of a city a single plant is found inadequate to meet the requirements and a duplication is found necessary by the authorities concerned. Some monopolies which are referred to as natural monopolies, arise on account of secrecy maintained by producers of the commodity regarding the method of production. Such is the case with the industry of synthetic dyes in Germany.

(iv) **Capitalistic monopolies.**—This type of monopolies are very important in advanced industrial countries of Europe, like England, France, Germany and Italy, America and Japan. In India such monopolies are very rare, as there is very little capitalistic production. Such capitalistic monopolies are known as cartels in Germany, and trusts in America and England. They are very important from the point of view of industry, and a great amount of literature has been published about them and about the various methods of utilising their services and minimising their dangers. We will deal with this type a little in details in the succeeding paragraphs.

Causes of Industrial Combinations—Ever since the development of the technique of division of labour and specialisation of machinery, the tendency ~~towards large scale~~ production has become universal in all industrial countries of the world. Capital has become concentrated and the scale of operation has grown larger and larger with every progress and development in industrial technique. We have learnt that there is very great scope for the application of large number of doses of labour and capital in manufacturing industries. Diminishing returns do not operate in their case, except after a pretty long period.

A minute¹ division and sub-division of labour, a highly extended use of machinery, an increase in the scale of production and use of specialised type of machines, production on a mass scale—these and other causes have combined to increase the size of productive enterprises in modern countries. The economies of large scale production are too well known to need any further discussion. The cumulative effect of introducing all these economies is that the price of the product becomes lower and consequently the market extends still further. With the extension of markets, further division of labour and a larger scale of operation become possible, and thus the circle goes on ever widening. Whenever a large number of such establishments are started in a certain country, competition also becomes very keen and almost

cut-throat Very soon, however, the great organisers of businesses, and millionaires who have invested large sums of money in these industrial undertakings, take counsel together, and come to a sort of agreement among themselves to eliminate, as far as possible, the cut-throat competition among different establishments. Usually they come to an understanding; if so, the different establishments belonging to the same industry form themselves into a unitary organisation, by virtue of which, although they are left independent in the management of their business for internal purposes, they work according to a common policy as far as important matters like the determination of wages or prices are concerned.

Questions like the determinations of price of the finished product, and the purchase of raw materials, are taken up by this new superior organisation. A joint stock concern consists of a large number of shareholders who elect directors from among themselves for the conduct of business. A capitalistic monopoly or a trust is a concern composed of a large number of joint stock or independent establishments as its constituent members, and there is a Joint Board of directors that controls and guides its joint deliberations. In this way competition is eliminated and waste is avoided.

Such organisations are found mostly in Germany and America as both have been protectionist countries for a long time. Foreign competition is rendered inoperative within their boundaries by means of tariff walls. In Germany, an arrangement is sometimes arrived at by means of a cartel, by virtue of which different establishments are assigned different areas as their respective spheres of activity; or each establishment is permitted to produce the commodity only upto a certain fixed amount, and not more. This restriction of production and confinement of areas, is not permissible under American law, but is quite permissible in Germany. That is why there is some difference between the constitution of a cartel and that of a trust, though the aims and objects of both are practically the same.

But trusts do not come into existence by evolutionary processes alone. Sometimes a rising firm succeeds in subduing or destroying its smaller rivals by methods which are not always regarded as fair. Such cases have been very frequent in America. Railways have played an important part in that country in the destruction of smaller rivals by giant concerns, which in consequence assume larger and larger proportions. The Standard Oil Company, for example, ruined a number of its rivals by acquiring favourable rates from railway companies. The discrimination of railway freights proves very effective in the elimination of rivals. The cutting of price by a firm, having a great control and command over

resources and able to bear a considerable loss in money for sometime, has been responsible for driving out of the field smaller firms which cannot stand this price cutting, and the consequent loss of money. Some rivals are thus eliminated; others either sue for peace and merge themselves into the big concern, or give up the business altogether, leaving only one giant, master of the situation. When this is accomplished a trust comes into existence, in which the giant firm plays a leading part, while others, that have merged their identity, play only the second fiddle.

Monopoly Revenue — When a capitalistic monopoly comes into existence either by an evolutionary process or by questionable methods, the next question before the monopolist is how to earn the largest monopoly revenue now that there are no other competitors in the field and he alone controls the entire production of the commodity.

No monopolist can modify the action of the law of diminishing utility according to which the importance of each successive increment diminishes to every person with his increased purchases of it. So the demand for the commodity cannot be affected directly. But by a clever manipulation of the supply of the commodity the monopolist can affect the demand and therefore the price which people would be willing to pay for it.

The value of air is nil, not because it is not useful and desirable, but because it is so plentiful. If its supply could somehow be controlled by someone, people could be made to pay anything for small quantities of it supplied by the Controller at his will. The monopolist accordingly follows this line. He restricts the supply of the monopolised commodity and thus succeeds in pushing up its price. How far and how much he should restrict the supply so that he might be able to push up its price to the highest possible limit is decided by a method of trial or sometimes instructively by the monopolist. In so doing he has to keep several considerations in mind and in the study of the problem of monopolies the question of the determination of maximum monopoly revenue is at once the most interesting and at the same time highly complicated.

The first thing that deserves attention is the nature and character of the commodity monopolised and of the want that it satisfies. If the demand for it is inelastic, that is to say, if for a small rise in its price, the demand for it does not diminish considerably, then it is obviously in the interest of the monopolist to let the supply be reduced to some extent if he can charge a considerably higher price for it. His monopoly revenue will become the greatest by so far curtailing the supply that the price may be pushed up to the maximum possible extent, or, in other words, by raising the price of the commodity only so far as not to affect its sale very considerably. If the demand for the com-

modity is elastic, it would not be possible for him to push up the price very much, as in this case his sales would be affected considerably and the basis itself of his monopoly profits would begin to dwindle largely.

Then he has to keep in mind whether the commodity is being produced under increasing, diminishing or constant returns. If it is being produced under increasing returns or diminishing costs he would not very much like to reduce its production and supply, because by the curtailment of production, there would be a disadvantage to him in as much as the expenses of production would rise. Commodities which are produced under increasing returns or diminishing costs are usually such that their demand is elastic. This would hit him on both sides. While the price offered would fall considerably, the cost of production would also increase.

On the other hand, if the commodity is produced under *diminishing returns, or increasing costs*, any restriction in its supply would be advantageous to him, in as much as a reduction in its supply would lower his expenses of production also. A commodity which is subject to increasing costs is usually such that its demand is more or less inelastic. Therefore, he would be benefited both ways, firstly by restricting its supply he would be reducing his expenses of production, secondly the demand for the commodity being inelastic he would be able to force the price sufficiently high up, without much curtailment in the quantity demanded. The case of constant returns would not present any serious difficulty, because, whether a large or a smaller amount is produced and placed on the market it would not affect his expenses of production. It would depend upon the elasticity or inelasticity of the demand for the commodity. That is to say, it would depend only upon whether people reduce their demand very much on account of a slight rise in the price or do not reduce it so much in spite of a rise.

It should not be understood, however, that the monopolist is absolutely free to do as he likes and thinks proper and that there is no check of any sort upon him and upon his not very laudable activities. As a matter of fact there are several forces which constantly exercise a restraining influence upon his revenue hunting activities. The first is the presence in the market of substitutes for the commodity whose production has been controlled. Up to a certain rise in price there may not be available any good substitute for the controlled commodity, but if the price is pushed up unduly or excessively, then not only does its demand fall off, but new substitutes begin to appear. It would not be possible for the monopolist to control these substitutes and their supply; so he has to make a halt and then refrain from further enhancing the price of the commodity. New methods

of economising the use of the commodity are also devised and the further progress in the rise of the price is thus arrested. During the present war, the price of safety razor blades went up considerably, not ofcourse due to the monopolists activities but because of restrictions on their imports and also due to the activities of the profiteers. The result was that razor-hoves began to be used in abundance to prolong the life of the blades with the result that high personages began to take pride in letting it be announced in the press that they had been using a single blade for 3 months, 6 months or even a year! Due to the rise in the price of petrol coal gas plant has begun to be used in motor cars and trucks, and everyone knows that vegetable ghee and oil have begun to be used as substitutes—though not good ones—for pure ghee. An undue or excessive rise in price, brought about by any cause what-so-ever brings into the market a number of substitutes, good, bad, and indifferent and a further rise in the price of the main commodity is thus restricted if not altogether stopped.

But this is not all. The monopolist suffers not only from the nightmare of substitutes, but being a person living in society and having to deal with his fellow men, he is not entirely indifferent to public opinion. He may have acquired a legal right to produce a commodity solely, or he may have created conditions of monopoly by his cleverness and skill, but he cannot afford to continue doing violence to the feelings of his fellow-men. Public opinion may be roused against him for his intensely selfish activities and his commodity may be actually boycotted and he himself may be socially ostracised. He has therefore to constantly keep a finger on the pulse of public opinion.

Lastly, he has to avoid the wrath of the Government of the country where he carries on his business. No government would permit the producer of a monopolised commodity to exact from the consumers a price which has very little relation to its cost of production. It passes legislation to keep in check the activities of the monopolists. Though this sort of legislation has not met with any considerable measure of success, it cannot be denied that the mere possibility of the government machinery being moved against the activities of a monopolist creates a sobering and sometimes even a healthy effect upon him.

In short, a monopolist has to keep all these factors in mind before fixing the amount of the commodity he is going to place on the market. A diagrammatic representation may, perhaps elucidate some points to those readers who are interested in diagrammatic representation, and are of a somewhat mathematical bent of mind. For this they are referred to an appendix in the end.

ADVANTAGES AND DISADVANTAGES OF MONOPOLIES

Advantages—The advantages of a monopoly are really the advantages of large scale production. All the advantages attributed to large scale production, apply to monopolies with greater force. The greatest advantage is that waste due to competition is avoided. This means a very great saving. Price cutting is altogether stopped. The expenses of advertisement are reduced to a considerable extent, leaving only those which are necessary to popularise the article amongst the public. Other advantages are efficiency in production, a better division of labour, economy of transportation and utilisation of by-products. All these causes lead to a lowering of cost of production and may lead to a lowering of price if the monopolist so pleases. It is possible that though the commodity may have been monopolised, and the monopolist may have been making extra profits, yet, the price of the commodity may be much less than what it might have been if the commodity were not so monopolised. Some trusts have their own means of transportation on certain important lines. This was the case with the Standard Oil Company of America. Several other economies which are not possible in moderately large establishments, are within reach of trusts on account of very large concentration of capital. There are Billion Dollar trusts in America, which, have vast resources at their disposal and control the production of many important commodities.

Trusts or industrial combinations are of two kinds horizontal, and vertical. A horizontal combination is a joint association of different establishments of the same class. For example there may be a horizontal combination of cotton mills of Bombay, Ahmedabad and other places. In a vertical combination different processes necessary in the production of a commodity, from beginning to end, are carried on and organised under one organisation. From the growing of raw materials to the ultimate sale of the finished product in retail stores, everything is under the control of one organisation. The Co-operative Wholesale Society of England is an instance of a vertical combination. It owns a number of tea estates in Assam and also owns a number of manufacturing firms which are engaged in the production of those articles which are necessary for labourers. So, in this case, from the growing of raw materials to the ultimate sale of the finished articles, the control of production and price is under a single management. The economic effects of this unified control are of a far-reaching character, and so it is not surprising to find that in some cases, inspite of monopolistic control, the price becomes cheaper.

Disadvantages—The first great disadvantage of a monopoly is a rise in the price of the monopolised commodity. This

is so because a monopolist wants to push up its price as high as possible, and does not like to leave it near its marginal cost of production. He tries to carry it as much above that level as possible. Another great disadvantage is that a good deal of corruption spreads among politicians and statesmen, who are responsible for carrying out the policy of protection or of control of monopolies. In the United States of America, many rich monopolists succeed in maintaining their advantages by keeping high officials bribed. Lastly, all those evils that are the result of heavy concentration of capital in a few hands appear in an accentuated form in a country where monopolies thrive.

Control of Monopolies — Opinions differ on the point whether monopolies are on the whole, beneficial or injurious to the interests of a country. The majority opinion seems to be against the continuance of such organisations. Attempts are therefore made to bring their activity under control, as far as possible. Legislation to this effect is passed, but it has not been found easy to control their activities. As a matter of fact, in every industrial country of the world subtler brains are found in business than in other walks of life. This is especially the case in the United States of America. In this battle of wits between legislators and monopolists the former have invariably found the latter to declare them illegal. However, such legislature is not meant to harm them, but only to keep a check on their vast powers. The good in them is utilised, while the evil is sought to be kept within narrow limits, as far as possible.

CHAPTER XIV

INTERNATIONAL TRADE.

Meaning —International trade means trade between different nations. We all understand fairly well what is meant by a nation, so we need not enter into the niceties of the question, as to what is and what is not a nation. Suffice it to say that the most important point with reference to the topic under discussion is that the unit of currency is different in different areas ; also that the laws in force are different. Internal trade is trade between different parts of the same country and so the unit of currency, and rules and regulations guiding the course of trade and industry are uniform throughout the whole region,

It is evident that movement of factors of production from one country to another is not easy due to these differences. Some countries present interesting features. In England and Australia, although rules and regulations in force are quite different, the unit of currency is the same. As between England and Ireland, although the unit of currency is different, there was till very recently, practically no difficulty in the movement of labour and capital from one country to the other. Leaving such exceptional cases aside, the points of difference between one nation and another are important and fundamental

Labour and capital are difficult to move even as between different parts of the same country. Between different countries, with difference in customs, language, laws, monetary systems and perhaps, religious and other social conditions also, this movement becomes still more difficult. Consequently, because any satisfactory adjustment between conditions of production in one country and in another is very difficult, certain permanent differences arise in the matter of trade and industry between different countries. It is observed that with differences in natural resources and climates, differences also arise in the aptitudes of people residing in countries distant from one another.

For all these reasons we find that internal trade is different in essential respects from international trade. If there is, for example, a rise in the demand for an article produced in a country, and its price rises much above the cost of production, there is no reason why others should not give up their old trades and callings, and adopting this trade, not begin to produce the article. After some time, therefore, the profits of production of this commodity come down to a normal level, and the difference disappears. It is not in the case of prices alone that differences that arise disappear in course of time. In the matter of wages of labour, and of interest on capital also—laws of the country, language, customs and habits etc., being the same—there

is no great hindrance ordinarily in the way of labourers to move from one part and settle in another in order to earn higher wages. Movement of capital is easier still. The only hindrance in its way is political instability. Capitalists may not like to invest their capital in countries about whose political future they are not very sure. No such considerations apply in internal trade.

There are, moreover, considerable difficulties, which have a tendency to increase in sending goods from one country to another due to restrictions imposed by other countries upon imports. This is another important difference between internal and international trade. The cost of transportation between one part of the world and another, has also to be taken into consideration. This cost increases with the increase in distance between trading countries.

In certain respects trade between different parts of India, especially those distant from one another, is similar to that between different nations. The trade for example, between Madras and Sind, or Madras and the Punjab, is, no doubt, internal, because the unit of currency is the same and the laws prevailing in both parts are uniform, but apart from these two important considerations, there are many points in which the trade between them resembles that between two nations. There are great differences in language, customs, religion, tradition, climate and physical conditions of different provinces. This is only by the way, and is only meant to show that in many respects India is more a continent than a country.

Why International Trade Arises. International trade arises for any one or more of the following reasons —

(a) In the first place, on account of physical and climatic differences between one part of the world and another, it is possible that the products of one part may differ from those of the other. There are certain products which may be grown only in a cold climate, while others which may thrive only in a hot or warm one. So, products of the temperate region, are exchanged for those of the tropical region, with some advantage to both the parts.

(b) In the second place, it sometimes happens that although a commodity can be produced in both countries it can be more cheaply produced in one than in the other. This may be due either to certain natural differences or on account of natural aptitudes of people residing in any part, or due to certain other causes. When such conditions exist, international trade arises.

(c) Sometimes it happens that though one country can produce a number of commodities much cheaper than the other, it may be considered more advantageous to import commodities which it can produce cheaper within its own borders from a

foreign country. This course is adopted because it can produce some other commodities still cheaper, which may consequently be exported to the other country in exchange for those which although it can produce cheaper, yet not so cheap as the other one. This third condition under which international trade arises is a very important one in modern times and is due to differences in comparative costs of production of commodities. The first two conditions are quite simple, and do not need any explanation or discussion, but the last one, being also very important, needs further discussion.

Doctrine of Comparative Costs. A country, suppose, can produce two commodities cheaper than another and so has an absolute advantage in the matter of both over the other country, but, it may be that it can produce one of the two commodities much cheaper than the other. The other country in this case has therefore, an absolute disadvantage as compared to the first in the production of both these commodities, but it can at least produce one of these two commodities less disadvantageously than the other. It means that although it has an absolute disadvantage as compared to the first country in the matter of production of both the commodities yet this disadvantage is less in respect of one than in that of the other. Under such conditions what usually happens is that the first country begins to export to the other the commodity in which it has a greater comparative advantage, while the second begins to export to the first that in which it has a lesser comparative disadvantage. Under such conditions also international trade arises, and benefits both the countries. This is what the doctrine of comparative costs maintains and seeks to prove.

Let us illustrate the point further. Take the case of England and India and suppose that the two commodities under discussion are wheat and cotton cloth. We also suppose—which is also a fact—that England can produce both wheat and cotton cloth cheaper than India. This means that England possesses an absolute advantage over India in the production of both wheat and cotton cloth; or in other words given quantity of labour and capital applied in England yields a greater return of both wheat and cotton cloth than is possible in India.

Suppose one dose of labour and capital, which might mean a definite number of labourers and a definite amount of capital, applied in India yields one unit of cotton cloth or two units of wheat; while one dose of labour and capital applied in England yields two units of cotton cloth or three units of wheat. Let us compare the result when the two countries produce both the commodities within their own borders and there is no international trade, with that when one begins to confine itself to the production of that in which it has either a greater comparative

advantage or a lesser comparative disadvantage. In the first case, that is to say, when there is no international trade, one unit of cotton cloth and two units of wheat will be produced in India by the application of two doses of labour and capital, one for each; while in England, in return for the two doses of labour and capital, two units of cotton cloth and three units of wheat will be produced. If we add up the products of both countries we come to the conclusion that three units of cotton cloth and five units of wheat are produced in both the countries when there is no international trade.

Now suppose that international trade arises between the two countries. Although England possesses an absolute advantage over India in the matter of both wheat and cotton cloth, it possesses a greater comparative advantage in the production of cotton cloth. Its superiority over Indian labour and capital in the production of cloth is in the ratio of one to two, that is to say 100%; while in the matter of wheat it is three to two, that is to say, only 66%. It means that England, though it has a greater absolute advantage in both possesses a greater comparative advantage in the matter of cotton cloth. In the same way it can be understood that India although suffering from a greater disadvantage in the matter of both wheat and cotton cloth has a lesser comparative disadvantage in the matter of wheat, than in that of cotton cloth. While its disadvantage in the matter of cloth is 100 per cent, it is only 66 per cent in the matter of wheat.

For these reasons England applies both the doses of labour and capital in the production of cotton cloth, and, consequently, produces 4 units of cotton cloth. While India applies both the doses of labour and capital in the production of wheat and produces 4 units of wheat. The combined products of both the countries are, therefore, 4 units of cloth and 4 units of wheat. Comparing it with that when there was no international trade, we find that it was then 3 units of cotton cloth and 5 units of wheat. We conclude that when there was no international trade, one unit less of the more valuable commodity, and one unit more of the less valuable commodity was produced. When international trade arose one unit less of the less valuable, and one unit more of the more valuable was produced. Clearly this 2nd position is more advantageous to both the countries as a whole than the first, when production was less.

The calculations and comparisons given above may be conveniently exhibited like this

England	India
One unit of labour and capital produces two units of cloth or 3 units of wheat.	One unit of labour and capital produces one unit of cloth or two units of wheat.

*Combined products of two doses of labour and capital in England
and two doses of labour and capital in India*

When there is no international trade.

England	Cloth	2 units	}	}	Cloth 3 units
	Wheat	3 units			
India	Cloth	1 unit	}	}	Wheat 5 units.
	Wheat	2 units			

When International trade arises.

England	Cloth	4 units	}	Cloth 4 units
India	Wheat	4 units		Wheat 4 units

So the gain from international trade is quite obvious. To what extent it is distributed between different countries is not easy to determine and forms the subject of international value

International Value A gain from international trade arises under the same principle as a gain from an ordinary exchange. This gain will be more or less according as the cost of production of different articles in different countries becomes higher or lower. In the illustration given above if the cost of production of cotton cloth becomes less in England, and that of wheat becomes less in India, the gain from international trade will become greater. So far, however, we are only speaking of gain to both the countries taken together. This is not, however, of very great interest to people, now-a-days. If there is a gain to both the countries engaged in international trade, the point which excites keener interest is to find out the proportion of his gain as between one and the other. Even if we are convinced that both the countries taken together gain by international trade, we would like to know what proportion of this gain falls to the lot of one and what proportion is shared by the other. It may be admitted at once that it is very difficult to exactly measure the respective gain for the simple reason that in the modern world a large number of factors has to be taken into consideration before it can be finally decided. It is difficult to *exactly* measure the gain of one or both of the countries engaged in international trade. However, a certain indication can be given which will enable to form an idea, however rough, of the probable gain to the two countries. There can be no better way of illustrating this than by taking two persons engaged in exchanging goods produced by each other.

Suppose one has a number of loaves of bread which he wants to exchange or barter while the other has a piece of cloth. Both of them have a surplus of the commodity in the production of which they are respectively engaged, and so each wants to barter his surplus with the other commodity that each needs. The baker has a surplus of loaves, while the weaver has surplus of cotton cloth. The baker wants cloth while the weaver wants loaves of bread. In a previous illustration, it was pointed out that there is always a gain of utility in exchange to both the parties, as long as there is freedom of transaction and not complete ignorance on either side. So in this case also when loaves of bread are bartered with cloth, there should be a gain of utility to both the parties. But one point is important. We have also to examine the nature of the commodity that each is giving to the other. In the case under consideration, the want of the weaver for loaves of bread is certainly more urgent, while that of the baker for cloth is not so urgent. If the baker and the weaver do not reach any agreement with each other, they both go their own way. The weaver will suffer more than the baker, because he wanted loaves of bread to satisfy a more urgent want. From this point of view alone, we may think that India would gain more than England in international trade, because India produces a commodity which is of a more urgent nature and satisfies a more urgent want than England, which produces only cotton cloth which does not satisfy an equally urgent want. But if, instead of one baker and one weaver, there were four bakers and only one weaver; or if a certain baker was somehow under the influence of the weaver; or if the weaver was in a position of authority over one or more of these bakers; yet, again if the weavers were very clever and powerful and rich, while the bakers were ignorant, simple and weak; under any of these conditions it could not be said that the advantage of the exchange would be gained more by the baker or bakers than by the weaver.

Reverting to the case of England and India, we may say that although India produces a commodity which satisfies a more urgent demand than the commodity produced by England, yet other conditions are not very favourable to India. India is a dependency of England, and does not enjoy autonomy. The rate of exchange cannot be fixed by those who have a greater claim to represent the country than others. Without entering into the details of the question, which may perhaps carry us beyond the limits that we have set for ourselves, it may be said that irrespective of the fact that India produces and exports agricultural articles, which satisfy more urgent demand of the world, yet due to other non-economic causes the gain from this international trade goes more to England than to India. The case between England and America is different. America is as powerful, even more powerful, than England, and trade between these two countries is on a par. Both understand their own

interests, and can take necessary steps and bring them into force whenever they like. This was the real reason why during the three years of the Great War and during the four years of the present one America repurchased from England all her railway securities, which were in the hands of Englishmen before the Great War and has now out-stripped England in financial resources to an enormous extent. During the last Great War India was not allowed to repurchase her Railway securities and did not gain much in other respects also. In the present war although she has paid off all her foreign debt and has accumulated considerable credits in London, one cannot feel sure as to how England would decide to settle our account after the war. In international trade therefore the gain as between the several parties is determined not only on economic grounds but there are other considerations as well.

ADVANTAGES AND DISADVANTAGES OF INTERNATIONAL TRADE.

Advantages (i) When trade between different parts of the world begins to take place, the number of commodities bought and sold becomes very large. Articles which cannot be produced in one country, begin to be imported from another in exchange for those which can be produced. If there were no international trade England would not be able to enjoy beverages like tea and coffee and fruits like mangoes. Cotton cannot be grown in England, and yet England is one of the greatest cotton piece goods manufacturing countries in the world. Countries with warm climate can also import articles which can be produced only in a colder region and *vice versa*. Wool, for example is not grown so well, and in such large quantities in tropical regions; it is accordingly imported from colder countries and then used for different purposes in warm countries also.

There is, besides, a large variety of products which can be better produced in one country than in another, either because of peculiar physical characteristics of a country; or due to special aptitudes of some people which cannot be easily developed by those of other countries. The result of a greater variety of products is an increase in the number of exchanges. With the developments of international trade wants of men have also increased enormously, and an increase of wants in its turn brings about increased trade between nations.

(ii) On account of the development of international trade, there is a great economy of effort. If the world were not so torn asunder by mutual jealousies as it is to day, and if its different parts behaved with one another like different parts of a country, there would be as great an advantage from interna-

tional trade as there is from ordinary division of labour. Unfortunately we find that this is not the case, and the world is rent now-a-days by mutual jealousies and suspicions. So, although on purely economic grounds it may be said that international trade is advantageous, yet there are so many other considerations which have to be taken note of. The last great war as well as the present world war have demonstrated that those countries which depended for the satisfaction of their wants upon imported goods from other countries suffered most in consequence due to the stoppage of these imports.

(iii) With economy of effort in each country the total productive capacity of the world can certainly increase, and prices of different commodities can also become cheaper; with the increase in the extent of markets, large scale operations become possible and there is a cheapening of products all round.

(iv) With the development of the means of transportation, products from one part of the country can be exported to another whenever necessary or desired. It has the effect of equalising prices in different parts of the same country. There can be no violent fluctuations in prices as between different places and different parts. What holds good in the case of a country also holds good in that of the world.

(v) When one part of the world benefits by trading with another, there should develop a sort of sympathy and bond of affection between the different parts. Peoples in different countries of the world, engaged in international trade, and having mutual relations would not like any sort of interruption or interference in these mutual exchanges, and so would like to remove differences between one part and the other. For this reason alone international trade can bring about good will and can prove an important force for peace. But as pointed out several times before, economic considerations are not the only considerations that guide people in their relations with one another. They are, no doubt very important, but there are other considerations as well. In spite of the much advertised League of Nations the present world war is once again causing havoc and misery all round.

Disadvantages.—(i) The present world is not meant for disorganised and weak people. Those who are strong and organised, take advantage of the weakness and disorganised state of others. International trade grows on account of developments in the means of transportation, and so exploitation of the resources of other countries begins to increase every where. Strong nations occupy, wherever possible, rich areas of the earth's surface, and begin to exploit their natural resources as also the people inhabiting them, for their own advantage. If it were not

possible for goods produced in one country to be exported to another, no one would feel inclined—because it would not be possible—to exploit the resources of other countries. There would then be no cause for stronger nations to bring under their domination the weaker and disorganised people, for the ultimate purpose of enriching themselves by exploiting their resources. This is then a very great disadvantage of international trade although it is more indirect than direct. It has created or at least strengthened Imperialism and Capitalism.

(ii) In the hope of present gains, people, engaged in international trade, forget the future interests of their respective countries. England, for example, exports large quantities of coal to different parts of the world. Coal is an exhaustible commodity, and although the coal resources of England are very great, they are, after all, not inexhaustible. Farsighted Englishmen have begun to point out the danger of the ultimate exhaustion of rich mines, and have begun to suggest a restriction in the export of coal. India, mostly exports ores from her mines without working them in the country. This is a great future loss. Also the export of other raw materials from the country which are not replaceable, is a great loss. But in view of present gains people do not keep in view the future loss of the nation. The present war will have exhausted considerably the coal and petrol resources of many countries of the world.

(iii) Not all commodities that are imported from abroad, are of a useful or beneficial nature. Wants are created which do not ultimately produce a wholesome effect upon the character and physique of the people when they are satisfied. It is not always good to prefer cheap and attractive articles to durable and useful ones. Great care is therefore necessary in the selection of articles that are imported from other countries. We, in India, mostly import articles that fall under the categories of comforts and luxuries. A poor country like India, cannot really afford to squander her money on such articles which sometimes even prove injurious to health and morals.

(iv) On account of the import of cheap and attractive articles, those of a durable and useful nature begin to be avoided. Human nature is so constituted that it prefers the former to the latter. The duty of those who are in charge of the affairs of a country is to restrict, as far as possible, the import of articles of the first description, so that those of the latter may continue to be produced or imported in the country. In India a large number of cottage industries were ruined on account of the import of cheap and showy articles from abroad. A large number of people became unemployed and had to take up agriculture, making the latter also a losing occupation.

(v) It does not satisfy our sense of justice and fair play to find that one part of the world may be engaged in producing articles which do not require much hard labour, and which can be produced under comfortable conditions, while another part may be compelled by circumstances to keep to the production of those commodities which cannot be produced without very great toil and hard work. Just as there is a difference between urban parts of a district and the rural parts, in the same way there develops a difference between those countries which produce manufactured and those which produce agricultural articles. Moreover, there is a sense, however vague, of inferiority in producing only agricultural articles and exporting them in the form in which they are produced, while there is something superior in exporting articles in finished forms.

(vi) As different parts of the world engaged in international trade are situated at long distances from one another, it is very difficult sometimes to adjust production to consumption; that is to say, there is a great difficulty in adjusting the supply of a commodity to its demand. For this reason we are often faced with over-production, with the result that there ensue trade depressions, and large parts of the world suffer on account of this mal-adjustment between supply and demand. To minimise this danger, international agreements are arrived at in order to keep production within specified limits so that there may be no excess of supply over demand. Sometimes, however, the restriction in the supply of the commodity is carried to such an extent that prices rise above the cost of production and problems connected with monopolies arise.

(vii) International trade is disadvantageous to those countries which are engaged in exporting mostly raw materials or agricultural products. These products are subject to diminishing returns, and, therefore, their price continually rises with increase in the demand for them as a result of the development of international trade. This advantage does not apply to those countries which are engaged in exporting articles subject to increasing returns, or even to those raw product exporting countries which have vast areas of virgin soil, as Canada and Australia.

Favourable and Unfavourable Balance of Trade. The idea of a favourable and unfavourable balance of trade has been handed down to us from the time of the Mercantilists. It is not meant to be conveyed here that the idea did not strike other people before the Mercantilists, but they gave it a great deal of definiteness and importance. The favourable balance of trade means that state of international trade between any two countries when one country continues to export more than she imports from another country. The result is, obviously, that money flows from one country to the other. The country which exports

more goods, has to be paid the balance in the form of money. It is usually regarded as a very satisfactory state of affairs to have a favourable balance of trade,

The country which imports more, and exports less, and which has consequently, to pay gold or money, in order to liquidate the balance, is said to have an unfavourable or an adverse balance of trade. This idea was given great importance in mediaeval times when nations were growing and people attached great importance to a favourable balance of trade. They knew that money would thus flow into the country after sometime, and thus would give it a greater power and influence over other people and countries.

At the time when the notion of favourable and unfavourable balance of trade originated, relations between different countries were not so complex as they have become ever since, but were quite simple. There was mostly only export and import of goods from one country to the other. There were ships, no doubt, that carried goods from one part to the other, but they were generally owned by different countries, and their earnings were not very important. They were engaged mostly in carrying goods of their own country. This was towards the middle of the 16th century. As time passed, relations between different countries of the world became more complex. Towards the end of the 18th century international trade began to increase by leaps and bounds, on account of increased production of goods, and development in the means of trans-oceanic navigation.

Moreover, after the discovery of coal and iron mines in England, ships which were previously made of wood began to be constructed of iron and steel. Other relations also began to develop. One nation, for example, began to lend money to another, and, in consequence, began to receive or pay, as the case might be, large sums of money in payment of interest.

People also became very much travel minded. Large number of people began to take rounds of important countries for sight seeing and for other purposes. So, while in very early times, the relations between different nations were greatly confined to the export and import of goods, there was now a great change in these relations. Correspondingly, in order to find out a favourable or unfavourable balance of trade as between any two countries, it was no longer sufficient to keep into consideration only the export and import of merchandise. It became necessary to keep in view other factors also, for which payment had to be made by a particular country.

Suppose, for example, that a certain country exports during a year goods worth Rs. 50,000,000 to the other, and imports goods worth Rs. 40,000,000. It can be said off hand that the balance of trade of the first country is favourable, while

that of the other unfavourable to the extent of Re. one crore. If it transpires later on that the other country has performed a number of services for the former, for which it has to be paid, say Rs. 2 crores by the first country, it would mean that although the balance of trade, when looked at from the point of view of mere trade exports and imports, was favourable to the first country, the balance of payment, when other factors were taken into consideration, turned in favour of the second country. So it is not really the balance of trade, but the balance of payments which is now more important. Let us examine India's case.

English banks perform important service in facilitating trade not only between India and England, but also between India and other countries of the world. For this service they earn a commission, which has to be paid by India and other countries. In the case of India this amount goes up to several crores of rupees per annum. Then there is the important service which British owned ships perform in carrying goods between India and England. For this a large amount of freight has to be paid. There is also a large number of civil and military officers, who are on the retired list in India, but reside in England. They served in India and earned a pension. This amount has to be sent from this country to England.

When all these factors are taken into consideration, it is found that the balance of payments is very much against India, and it is for this reason that India has to export an increasing amount of commodities or gold which is also one of the commodities to settle the balance.

So, when we take into consideration not only the amount of exports and imports of goods but also all those factors that have been mentioned above, the accounting between two countries becomes complex, and cannot be done only with reference to commodities alone; other factors like the above have also to be taken into consideration. Other items that enter into the equation of indebtedness will be discussed under foreign exchanges.

Free Trade and Protection—When trade between any two countries goes on, or is permitted, without any hindrance whatsoever, it is called free trade. The hindrances that are placed are usually, import duties, or very rarely export duties. If goods from India reach English consumers without any other charge except that of cost of transportation and correspondingly, if goods manufactured in England are imported into India and reach Indian consumers without any other charge, the trade between England and India will be called free trade. But if goods from England cannot find entry into India without having to pay a duty of say 10, 15 or 20 or more per cent, and in the same way goods from India do not find unrestricted entry into

England the trade will not be called free trade but restricted trade.

Import duties are charged mainly for two reasons; firstly, in order to give a sort of encouragement to home industries, by making foreign goods dearer in the home market to the extent of the duty; secondly, they are levied for fiscal purposes; that is to say for purposes of collecting revenue for the expenses of the State. In the second case, the aim is not to give any encouragement to home industries or to cause any discouragement to foreign industries, though it may come out to be the ultimate result of this imposition; but the main idea is to collect revenue by charging a certain percentage upon goods imported. The import duty can be made entirely fiscal when an equivalent duty is imposed upon goods of the same nature produced in the country itself. Such a duty is called an excise duty, and was levied for a considerable period on Indian cotton goods when a duty of 5% was levied upon British cotton goods imported into India immediately before and during the war. If an import duty is levied upon foreign goods for the purposes of giving encouragement to home industries, it becomes purely protective, and the country becomes a protectionist country.

Arguments for and against free trade and protection The theory of international trade demands that there should be as little interference in the flow of goods between any two countries as possible. If that is so the gain to both the countries will be the greatest and in this way the whole world will gain considerably. What is regarded true as between two individuals is considered equally true as between two nations.

During the middle ages there was very little international trade. Only those commodities were purchased which could not be produced in one country. So the question of protection did not very much arise. The Mercantilists wanted to discourage the import of goods by different means in their power, and wanted to encourage exports from their own country. This could not be possible unless there were countries which had either a policy different from that of the Mercantilists, or could not bring their policy into force in their own country. If every country begins to discourage imports, and encourage exports, things cannot go on. If goods of a certain country are discouraged from entering into another there is no reason why the former should encourage or allow imports into it from others. Any way, the thing went on for sometime after which there was a very great change in the views of economists in this connection. The Physiocrats in France and Adam Smith in England, came out with a new policy that of free trade that is to say, trade without any restriction or hindrance whatsoever between different parts of the same country and between different countries of the world. England readily adopted this policy, as Industrial

Revolution had already taken place there and she found herself at a very great advantage as compared to the rest of the world in the matter of production. The policy of free trade very well fitted in with the conditions prevailing in England at that time. Other parts of the world could not produce goods as cheaply and as well as England. There was, therefore, no danger to England of imports from other countries. If there was any danger; it was only to those where machine production had not become so popular.

England could therefore conveniently and without any risk whatsoever adopt the policy of free trade, and could also sermonise to the whole world in this connection. The policy of *laissez faire, laissez passer*, originating from France, was adopted by England almost in every walk of life. This policy, although it suited the interests of England, did not suit other countries equally well. Germany and America very soon adopted under List and Carey the policy of protection. England continued her policy of free trade, but after 1870 she too began to feel the effects of German competition in certain foreign markets. After sometime America also came into the field. Germany and America became rivals of England in some foreign markets of the world. England still carried on with her old policy as these two countries had not become so formidable as to compel English statesmen to change the old policy of their country.

The beginning of the 20th century saw Germany, America, Russia, Italy and France, in the field of production almost side by side with England. They made up their past deficiency to a considerable extent and in certain fields of production even left England behind them. English statesmen began to seriously think of giving up their old policy, and of introducing certain modifications in it, so that they might be able to protect their already grown up industry from the competition of progressive countries! By the beginning of the Great War however, England's position had become so vulnerable that her statesmen began to seriously think of introducing protection to English industries through the back door. The war gave them a justification. So, after the close of the war, they began to grant protection to their industries against foreign goods. England began to charge import duties and adopted the policy of protection, a policy which she had not only not adopted during a large number of years, but which she had done her best to discourage other countries to adopt. Even before formally adopting protection as her avowed policy, English statesmen, shrewd as they always have been had introduced a new scheme for adoption by other units of their empire, namely, Imperial Preference. But of this hereafter.

Advantages of Free Trade If mutual jealousies between different countries of the world disappear, or, become a little less

than what they have been, the world can become a much better place to live in than it is to-day. But this seems to be nothing but a pious hope. Under present conditions of aggressive nationalism and a world war it is not very helpful to sing the praises of free trade. There was a time when some advantages of free trade could be discussed by people. But at present we live in a different world. The advantages of International Trade, some of which have been discussed above, are really the advantages of a free exchange; but they do not appeal to our minds under present conditions. Even though there may be a slight disadvantage to us in certain respects by adopting protection, and by not adopting free trade we in India, at present, cannot think of introducing free trade in our country for a considerable time to come. Therefore, it will not serve any useful purpose if we discuss its advantages. While discussing the disadvantages of protection, the advantages of free trade will be indicated indirectly. This is where we would like to leave this discussion.

Advantages of Protection (i) India started in the race for industrialisation long after other nations had traversed a great distance and a few had disappeared from sight. During the course of this great start, western nations in general and England in particular developed their industry and organisation to a great extent. When India began to produce goods from her factories, she found herself very much crippled by competition from other industrial countries, which had gone far in advance of her. Serious competition also began between goods produced by the newly started industries in India, and English goods produced by veteran establishments of that country, which had more than a hundred years start over Indian industries. It was practically a competition between a giant and an infant. For this reason if for nothing else, protection of the infant was very essential. The first argument, therefore, for protection is that the infant industry needs protection against giant establishments of other countries of the world. This argument was first used by List, a German economist and is known as the infant industries argument.

(ii) If one country depends almost entirely upon a single industry, say, agriculture it is not very desirable from the social point of view. While, discussing the disadvantages of the localisation of industries, it was pointed out that a great disadvantage of localisation was that a particular locality has to depend too much upon one industry alone. If anything goes wrong with the industry, the whole locality suffers. That which applies to a locality, also applies to a country, if there is only one industry or one chief industry upon which the whole country depends for her well being and subsistence. Therefore, to make this dependence less complete, it is necessary that a larger number of industries is encouraged in a country. This is possible

only by affording protection to new industries. This argument for protection is called the diversification of industries argument.

(iii) A country should not depend for her raw materials upon other countries of the world. As far as this point is concerned, India is not at a disadvantage as compared to other countries. She grows her own foodstuffs also raises other raw materials. She imports mostly articles of comfort and luxuries. But there are other basic industries known sometimes as heavy industries in which our country is still lacking. It is expected that after the present war this deficiency will disappear. In respect of foodstuffs and other raw materials conditions are more disadvantageous for other countries which depend for iron and coal and other necessary things, upon other countries of the world. We in India like to make our country, as far as possible self-sufficient. India is rather a continent than a country. It is also a fact that we have a large variety of climate, and a larger variety of raw-materials than anywhere else. Our labour too is not so hopeless as it is sometimes depicted to be by interested parties. If we introduce protection of a thorough going nature we can work up our raw materials into finished products. There is no reason why we should not be able to produce all those goods which we import with a view to become self-contained and self maintained.

There are, perhaps, only four countries in the world which can become self-sufficing in this sense, namely, United States of America, Russia, India and China. The first step towards self-sufficiency is the encouragement to our industries, and for this we should give adequate and full protection to them.

(iv) As long as hundreds of millions of our countrymen are unemployed, it does not behove us, as patriotic citizens of India, to countenance the sale of foreign products in the country. We should not ordinarily purchase articles of comforts and luxuries; but if we must, they should be Indian made. We should try to encourage production of goods in our own country, so that our countrymen may not remain unemployed as they are at present. For this it is necessary that by means of protective duty on foreign goods, we make imported goods so dear that no Indian may like to purchase them under ordinary conditions.

(v) Different countries of the world adopt different measures to encourage their industries. Dumping is very often resorted to by some. It consists in increasing the price of the commodity within the country of production and lowering it considerably in countries of export. The aim is to ruin the industry of other countries by means of price cutting. This results, for the time being, in raising the price of the commodity in the country of production, but it is, only for a short time. When the industries

of other countries are destroyed, things are allowed to take their normal course. The price of the exported commodity in the exporting country is later on reduced, and that in the other country raised because now there are no local industries to compete. In order to save local industries from this sort of absolutely unfair competition the only thing that can be done is to impose a protective duty on the dumped article high enough to make it dear in the importing country.

(vi) By means of protection, the wages of workmen also increase after some time. This is one way of improving their condition. Although general prices also rise in a protectionist country yet there is also a great increase in wages, and the balance of advantage remains with the workers.

(vii) Needless to say, if new industries are started in a country, they would give increased employment to people, and the Government revenue will also very much increase on account of all round increased production, high wages and high profits.

Arguments Against Protection. In the foregoing pages a number of arguments have been given in support of Protection. It should not be understood, however, that there are no arguments against it, and there are no people even in India, who are not for free-trade. There are in India as elsewhere people of socialistic views. Some of them are national socialists, while others are internationalists. The latter regard patriotism or love of country as a mediaeval trait of character. They are moreover not in favour of anything that has even a remote chance of helping the capitalists, or increasing their income even though it may also benefit the labourers in the country, whose interests they represent. They say that by the imposition of a protective duty on imports the prices of imported articles are raised to that extent. The prices of home made articles also rise up to that level. Cheaper commodities are kept out of the market, and dearer ones are patronised. The result is that general consumers have to pay higher prices, the profits going to the producers of protected commodities. The producers already rich are helped to become richer at the cost of general consumers, who are usually poor and belong to the labouring classes.

The argument is plausible; but it needs to be closely scrutinised. In the first place what a consumer loses is gained by his own country. Even capitalists are after all Indians, and many of them are greater patriots than a large number of socialists themselves. In the second place, what is taken from the pockets of consumers, does not remain entirely, or even largely, with the capitalists. When prices rise on account of imposition of import duties, and profits of manufacturers go up there is no reason why labourers also should not demand their share in this rise

in prices and profits. If they cannot secure any increment in their wages even when manufacturers make large profits, it means that they are not very well organised, or do not understand their own interests. It is the duty of socialists who profess to espouse their cause, to organise the labourers and enable them to secure their rightful share in the increase of profits accruing to capitalists on account of protection.

Besides, it is not always necessary that with the imposition of a protective duty the profits of manufacturers should increase proportionately. What a protective duty very often does is only to enable local manufacturers to continue to earn only their normal profits and to save them from being driven out of the field of production by foreign manufacturers who produce under highly advantageous conditions. Moreover if it is discovered that Indian manufacturers, while themselves deriving full benefit from a rise in the price due to the imposition of a protective duty, refuse to allow the deserved increment in wages to their labourers, public opinion should be organised against them. The Government can also take away a large slice of their income if it is considered excessive. Excess Profits Tax is a handy weapon in the hands of the Government to increase its own revenue and keep down the high profits of industrialists. As a matter of fact, for a considerable time to come, we should continue to look at this question from purely Indian point of view and on purely patriotic grounds. If some capitalists gain by protection and at the same time a large number of labourers also gain more or less by a rise in wages, there is no reason why protection should not be recommended and insistently demanded.

Means of encouraging Indian Industries Indian industries, both factory and cottage, can be encouraged in a number of ways. What is needed at the outset, is a sincere desire to help their development and growth, even though it may ultimately injure English or any other interests.

(1) The first thing needed is a sufficiently high tariff wall against those products which are now imported from foreign countries, but which can be produced in India with or without other assistance. The duty should be such that it gives adequate protection to the protected article and it should continue for a period long enough to enable those who invest their capital, to earn enough for remunerating them for the risk taken in investment. The mistake of the imposition of an excise duty on the growing sugar industry, should not be repeated. In this case, although the protection that was granted has not been reduced, yet the advantage to those who had invested their money in the industry has been considerably reduced. Such sudden changes in the policy of the Government create a very bad impression.

(2) Industries can also be encouraged by Government by granting them free use of land either for the purpose of constructing factories or for that of constructing quarters for their labourers.

(3) Assistance can be given by lowering railway freights on raw materials required in the manufacture of articles, and also by lowering them on finished products when they are sent from the factory to different places in India. There is a general complaint among Indian industrialists against the working of railways. Railway rates have been so framed that they give a greater advantage to foreign than to Indian manufacturers. For example, goods that are imported into Lahore from London and reach their destination either *via* Bombay or *via* Karachi, have not to pay so much in freight as goods that are manufactured in Bombay and Karachi and are exported originally from these two places to Lahore. In the same way, raw materials that are sent from the interior of the country to any port of India for purposes of export to foreign countries, are charged less than when materials are sent to any centre in the country itself. This sort of discrimination in railway freights is almost criminal, and the sooner it is rigorously discouraged the better. The policy of railways in this matter should be entirely reversed. Encouragement should be given to Indian manufacturers, not to English or foreign ones.

(4) Much encouragement can be given by affording some financial facilities either through banks or directly. A certain amount of share capital of important joint stock concerns may be subscribed by provincial or local governments so that the necessary impetus may be given to the newly established industry, and it may begin to command the confidence of the general public. This is done in Germany by leading German banks; the Government also gives direct financial aid to the more important industries.

(5) The Government of India can further encourage Indian industries by purchasing their store requirements from India. In spite of repeated requisitions on the part of Indian politicians and Indian business men, large amounts of such purchases are even now made in foreign countries, especially England. It is only very recently, that the Government of India have begun to purchase articles of steel made by the Tatas.

(6) India still remains an unexplored region. 'Serious attempts have not yet been made to form even a fair estimate of the industrial possibilities of the various Provinces of this vast country. Expert committees and commissions should be appointed to find out and report upon the industrial possibilities of each province. These reports, should be widely circulated, so that all those who want to invest their money in any of the industries may do it.

(7) Subsidies and bounties can also be granted in the beginning if the case is considered deserving enough.

Conditions under which protection is desirable in India. When it is said that Indian industries should be protected against foreign competition by means of import duties, and when arguments are advanced in favour of protection, it is never meant that duties should be imposed upon all commodities imported from foreign countries, indiscriminately. For example, it will do no good if import duties are imposed upon articles which are almost impossible to produce in India at the present time, or for a considerable time to come. Protection, therefore, should not be indiscriminate. Before imposing import duties on any article for purposes of protection, it should be very well examined whether it will do any good to the industry. It should not be forgotten that the imposition of a duty raises its price and makes it certainly difficult for poor consumers to purchase it. So, before taking any such step, which is certain to affect adversely the position of poorer consumers in the country, it should be carefully examined whether it is worth while to make the sacrifice.

For going through such questions in their various details, a fiscal commission was appointed by the Government of India. It examined these questions very carefully and minutely and then submitted report making several useful recommendations, one of them was the constitution of a Tariff Board whose duty it was to examine every application for protection. This Tariff Board laid down that before granting protection to any industry it should be seen whether it satisfied the following conditions. Protection should be granted only when they are adequately satisfied.

(i) 'The industry should be a basic industry, and its product should be in great demand'. This recommendation means that only those commodities should be protected which are widely consumed and are very important from the national point of view. Another idea underlying it seems to be that there should be the greatest good of the greatest number. Cotton industry, for example, would satisfy these conditions; so also iron, and many others

(ii) The industry should be such that if by granting protection to it the demand for the protected commodity increases, and it begins to be produced on a large scale, it may not at once begin to suffer from the operation of diminishing returns. On the other hand, it should be such that if after receiving this encouragement it begins to be produced in large quantities, and the scale of operations increases, increasing returns may come into operation, and the price of the article may become cheaper

than before'. It means, therefore, that the commodity should be a manufactured article rather than an agricultural product

(iii) 'The raw material necessary in the manufacture of the product should be available in the country in large quantity, so that there may be no difficulty in getting it when the article begins to be produced in larger quantities'

(iv) 'The labour necessary for the working and management of the industry should be available in the country itself so that it may not have to depend upon foreign management'

(v) 'Capital necessary for the industry should also be forthcoming in the country itself. The industry should not depend for its capital upon foreign capitalists'. By this the Tariff Board mean that protected industries should be purely Indian concerns, started with Indian capital run and managed by Indian labour, using Indian raw-materials, and ultimately depending for their market upon the country.

(vi) 'The industry should be such that it has a big home market, so that it may not have to look to other countries for its sale'.

(vii) 'As far as possible, the industry should be of such a nature that after sometime it may stand on its own legs, and the amount of protection given to it in the beginning may be withdrawn after some time'.

As for the last recommendation it may be mentioned that this has always been the pious wish of all those who recommend protection to industries on any ground whatsoever. Protection to industries is given usually on the ground of nurturing them during the infant stage. It is always hoped that after they have taken firm root the protection would be withdrawn. But this hope is never realised. Whenever any attempt is made to withdraw the protection or to reduce its amount strong and influential people begin to exert themselves and the tariff has to be left undisturbed. This has been the case in America, Germany and elsewhere, and this is likely to be the result in India.

Fair Trade. It is a modified form of free trade. As its name implies, it gives a fair chance to different parties. For example, if a certain country is flooded with a dumped article, it is necessary to protect the home industry by means of certain duties, so that the home producers may not be at a disadvantage as compared to the producers of other countries. For this reason a duty equivalent to the bounty given by a foreign country is imposed upon the bounty-ted article. This gives a fair chance to the home producer of the article. Again, if for fiscal purposes an import duty is levied upon goods imported into the country, then, in order to bring the foreign producer and the home

producer on the same level, an excise duty of an equivalent amount is also imposed upon goods produced in the country. This is called fair trade.

Reciprocity. When a country grants the same concession to another country in the matter of trading which it has received from the other, it is known as reciprocity. Different countries give special concessions to some, and receive equally special concessions from others. This is also known as the most favoured nation treatment.

Retaliation If a particular country imposes an import duty upon goods imported into it from another and the latter, in the spirit of tit for tat imposes an equally high duty upon the goods of the former, the action is known as retaliation.

Imperial Preference Even before the out-break of the Great War the position of England had become relatively less strong in the industrial sphere than it was a few decades before. Germany, America, Japan, and also Italy, had begun to compete with England in different industrial spheres. During and after the Great War, England realised her weakness, the signs of which had begun to appear since the beginning of the 20th century.

Far sighted statesmen wanted to bring together different members of the British Empire on a common basis by giving mutual preferences to one another; but while demanding preference from colonies, the British statesmen were not prepared to give any concession on goods imported from the colonies. It was so because the policy of Britain had for a long time been that of free trade, and protection in any form what-so-ever was discouraged. But after the Great War the position became almost untenable and serious attempts began to be made to popularise the idea of Imperial Preference. The idea underlying the scheme was to minimise the danger to England of competition from other leading countries, and at the same time to secure large markets in Dominions and in India under favourable conditions and terms.

The idea of Imperial Preference was not a new one. In 1903, Mr. Joseph Chamberlain had recommended the adoption of Imperial Preference by England, but at the time there were very few in the House of Commons who were prepared to support this idea, and so the proposal had to be dropped. After the Great War another attempt was made to induce the House of Commons to adopt this policy. During this intervening period conditions in the industrial world had so far changed that the atmosphere became favourable for the adoption of the policy.

Mr. Lloyd George and Mr. Bonar Law supported the scheme which was adopted by the House of Commons. This scheme gave perfect freedom to different members of the British

Empire to protect their own industries against competition from abroad, by imposing adequate protective duties on all goods imported into the country. After protecting their own industries against foreign competition, including that of England and other members of the British Empire, some preference was to be given on goods manufactured by members of the Empire. Let us illustrate the point.

Suppose, India considers a duty of 30 p. c. necessary on foreign piece goods for the adequate protection of her own industry. A duty of 40 per cent might then be imposed on cotton piece goods imported from all other countries, but on goods imported from England and Empire countries, the duty might be say, 30 per cent. In this way, while on the one hand a preference of 10 per cent would be given on goods manufactured by countries within the British Empire, adequate steps would also have been taken to protect the home industry, not only against goods manufactured in other foreign countries, but also against goods manufactured in the Empire countries.

This was briefly the Imperial Preference scheme. India was asked several times to adopt this policy, but every time the Government and the people refused to accept it. In 1903 the Government of India expressed the view that 'from an economic point of view India has something, but not very much, to offer to the Empire, that she has very little to gain in return, and that she has a great deal to lose or to risk'. This view¹ was repeated by India's representatives at the Imperial Economic Conference of 1923. But in 1931, an official delegation was sent from India to Ottawa, where an Imperial Conference was going to be held, and the question of Imperial Preference was also going to be discussed. Mr. now Sir Sanmukham Chetty was appointed chairman of this delegation. In this conference the Indian delegation accepted the policy of Imperial Preference and a pact known as the Ottawa Pact was signed by all members of the British Empire. In virtue of this, India agreed to give a preference of 10 per cent. There was a sharp difference of opinion on this question in the Assembly, but as it was only for 5 years, and after the expiry of that period it could be terminated by any party, the Assembly, accepted it. During the period of 5 years that passed since the passing of the measure, different opinions were expressed upon it. But during this period conditions in the country and in the world, were uncertain and indefinite. So it is very difficult to give any definite opinion whether the country benefited by it or not.

In the year 1936 the question was again raised on the 25th of March. On the 26th of March the debate on the Ottawa agreement took place in the legislative assembly. The then Commerce Member Sir Zafar Ullah Khan announced that the Government would accept the verdict of the Assembly on the Ottawa Agreement. A large number of amendments were moved by several

members. Dr. P. N. Banerji an important member and an eminent economist of Calcutta, said that the pact was the outcome of England's post war efforts to rehabilitate her position, and that it was the culmination of that policy. With reference to the series of inspired articles by the Director of Commercial Intelligence, Dr. Banerji pointed out that even that showed that the pact was more advantageous to the United Kingdom than to India. In her case the preference related to raw materials, which was a definite discouragement to her manufactures, and the framers of the pact had ignored this important fact. What was needed was that India should be left free to enter into bi-lateral treaties; for the Ottawa Pact stood in their way. Mr. Govind Ballabh Pant said, among other things, that as a result of the Ottawa Pact, France, Japan, Germany, and other countries, had imposed duties on linseed, ground nuts, and certain other articles, in a retaliatory spirit. Mr. Jinnah's amendment, which was for terminating the Agreement without any delay, was carried in the Assembly by 70 votes to 65.

The Indo-British Trade Agreement. After the adverse Assembly vote on the Ottawa Agreement on March 30, 1936, the Government of India had no other option but to give six months notice of termination to the British Government. This was because the Government of India had committed itself to abide by the decision of the Assembly most probably under the conviction that the Assembly would vote for the continuance of the Agreement. Consequently, after their disillusionment of March 30, the Government began to take a series of steps in an attempt to retrieve the situation to the best of their ability; and in this attempt they succeeded to a considerable extent.

In the first place it was decided that pending the conclusion of a new trade agreement with Britain the 1932 Agreement should continue in force. The new trade agreement was not concluded till March 1939; so for about 2½ years the old arrangements continued in spite of the termination of the Ottawa Agreement; and when the new Indo-British Trade Agreement was concluded in March 1939, it was not with the consent of the Assembly which voted against it, but under the certificate from the Viceroy! The fiscal autonomy convention was thus completely thrown to the winds.

The new Agreement contains the provision, previously agreed, that only a certain margin of preference should be guaranteed without fixing actual rates of duties. Some other modifications were also introduced in the new Agreement which were considered to be advantageous to the interests of India's trade. Thus, while India's exports to Britain continued to enjoy preference as before, the range of commodities imported from United Kingdom and enjoying preference in India was considerably narrowed.

down. Generally speaking, however the new Agreement was not hailed with delight and even failed to secure the approval of important commercial organisations of the country.

The present war that has now been going on for more than four years has rendered inoperative and ineffective all such bilateral agreements that had been concluded in or before 1939. Such vast forces have been set loose by this Second World War that no one can prophesy what changes may not be brought about by them. Not only the future trade relations between different countries of the world are in the melting pot but the entire future—social, political and economic—of the world hangs in the balance. With bated breath the world awaits the unfolding of its destiny.

MONEY

and

THE MECHANISM OF EXCHANGE

CHAPTER XV.

MONEY

Definition. Keynes defines money as that commodity by the delivery of which debt contracts and price contracts are discharged, and in the shape of which a store of general purchasing power is held. This definition can serve our purpose quite well. So we now proceed to discuss certain characteristics.

Characteristics of money. In the first place money is that which is acceptable in exchange to every one in a community. In the beginning it was accepted primarily because the commodity of which it was made was useful to members for purposes other than that of money. It was only for this reason that cattle, wheat, salt, tobacco, skins of animals etc., were adopted at different times as money material. According as a particular commodity was regarded as more or less useful at a certain stage, it was adopted as money material. This characteristic was of great importance as long as man had not sufficiently advanced in economic sphere. In modern times, however, it is not necessary that the money material should also be useful for purposes other than money, before it can be universally acceptable. Now-a-days, the most important form of money is really paper money, which is accepted not because of the usefulness of the material, but because of its legal character; that is to say, money has to be accepted under the orders of the State, irrespective of the usefulness of the material that it is made of. It should not be forgotten, however, that it is accepted even under orders of the State only because people think that ultimately it can be convertible into that material which possesses a usefulness of its own, namely, gold or silver. If this hope some how disappears, the value of money, inspite of the orders of the State would tend to fall and might ultimately become almost zero. So we conclude that the most important characteristic of money is that it is universally acceptable in exchange to every one

The other characteristic which follows from the definition given above, is that money can discharge any obligation that one person owes to another. Debts can be discharged as between different people; government dues can be paid to an unlimited

extent; and the government on its part also discharges all its obligations by making payments in money.

The third characteristic is that whoever the person that makes a payment, he is discharged from his obligation after he has made it. In such transactions importance is attached only to money and its payment, and not to the character or other quality or attributes of the payer. If money is good, the payment is good, whether one who pays it is good, bad, or indifferent.

The last characteristic which is usually pointed out in this connection is that money is used for purposes of consumption; that is to say, it is not enjoyed in any other way except through its exchanging work. This is right to a very great extent, but sometimes we find people who enjoy money not so much for exchanging properties as for its mere presence! The story of King Midas is a familiar one. Such people have abnormal mentalities. They count their money over and over again, and the very fact that they possess a large amount of money, gives them a peculiar satisfaction greater, perhaps, than that which they get when they exchange it in return for certain commodities of daily use. Such cases are not very common in modern world, and Economics does not take any serious notice of them.

Functions of Money

Money performs four functions

- ✓ 1. It acts as a medium of exchange.
- ✓ 2. It acts as a measure of value, or, as a common denominator of value.
- ~ 3. It acts as a standard for deferred payments, and
- ✓ 4. It acts as a store of value.

The most important function of money is that it acts as a medium of exchange. This characteristic of money brought about money economy in place of barter economy. In every exchange transaction, money must figure as one of the articles. If we buy a commodity we do it in terms of money. If we sell anything we do it again in terms of money. In short, we cannot think of any exchange transaction without at the same time thinking of money also.

The second function follows immediately from the first. When in every exchange transaction money has to figure, it follows that it must be also used as a measure of value; that is to say, when we buy a certain commodity in terms of money, say, a chair, it means that we measure the value of the chair as equal to so many Rupees. When we sell a commodity we again do it with reference to money. So, while money enters in every exchange transaction, it also serves the purpose of measuring the values of different

commodities and different services. This is, therefore, the second important function of money.

The third function is really an extension of the first. When money acts as a medium of exchange for cash transactions, it must act as a medium for credit transactions too. Even for postponed payments, therefore, money has to act as a medium of exchange; which means that credit transactions also begin in terms of money and end with payments in money. Later on, we will find that for certain reasons some business and tradesmen find it more equitable to adopt a different method of making postponed payments. This is, however, only in very rare cases, and for certain special purposes. In every day life, and in the vast majority of transactions, money alone acts as a standard for deferred or postponed payments also.

The fourth function is that it acts as a store of value. If a person's income is greater than his expenditure, he likes to save and keep his saving either with him or with some other institution, like a bank. This store of value is also kept in the form of money. It is really not a very important function or a very distinct one. Although Rupees are the current money, yet there are many people who keep a store of value not in the form of Rupees or their substitutes, but in the form of gold or, usually in the form of gold ornaments. In China the store of value is kept in the form of silver. In certain other countries the old type of people keep standard coins of some other countries in their possession to utilise them in times of need.

Special suitability of the precious metals. With the decline of barter, different people in different parts of the world adopted different commodities as money material. This was determined by the stage of civilisation reached by these different people. Some adopted skins or teeth of certain animals as money material; others adopted cattle or wheat or other agricultural articles. Lastly, however, gold and silver were adopted for this purpose. Keeping under consideration various functions that money has to perform, the money material also must possess certain special properties on account of which it may be in a position to satisfy all the functions attributed to it. On the basis of world-wide experience gold and silver were found to possess those properties which made them eminently suitable for serving as money materials. Those properties are given below.

(1) **Divisibility.** The money material should be such that it might be divided into convenient size whenever needed for exchange purposes. As both large and small coins are needed, the money material should not lose its value when

divided or sub-divided. Gold and silver satisfy this requirement very well.

(2) Indestructibility It should be durable, because it acts as a medium of exchange, and has to change hands numerous times; and also because it has to act as a store of value and so has to be kept for a considerable time. It should therefore, be hard and strong and should not wear out soon. Gold and silver satisfy this requirement but only when they are mixed with a certain proportion of another metal. The alloy thus formed becomes very hard and Jevons estimated that a gold sovereign could last as a coin for 800 years.

(3) Stability. The value of money material should be stable that is to say, it should not fluctuate from time to time. One of the important functions of money material is that it acts as a measure of value. Obviously, it cannot serve this function satisfactorily, unless its own value remains unchanged, and does not fluctuate from time to time. If there are frequent fluctuations it would not be in a position to correctly measure the values of other commodities and services. Although gold and silver even change in value after the expiry of relatively long periods, yet from day to day or within short periods their value fluctuates very little. One important cause of this stability, in their value is that the quantity present in the world is so great that the annual supply, however large, does not produce any marked change in their total quantity or supply.

(4) Portability. This is another requirement which a money material must possess. As it is to be carried from place to place, it should be portable. As long as exchange transactions did not involve large sums of money, gold and silver served the purpose well enough. But now-a-days large sums of money are involved, and men find silver and even gold a cumbersome material to handle. For this reason, paper has begun to be used in place of gold and silver. Even paper notes are sometimes regarded as unnecessarily cumbersome. Large payments are, therefore, made by means of cheques—a system which will be discussed later on.

(5) Utility. It should possess some utility of its own that is to say it should be demanded for its own sake irrespective of its use as money. Gold and silver satisfy this requirement in a perfect measure. They are used not only as money material, but are also used for other purposes, and in arts. A man who accepts in exchange gold and silver coins feels a sort of satisfaction in the belief that even if the coins are not accepted in exchange at any time they will be accepted by any one in the form of bullion, In spite of great developments

in monetary theory and practice throughout the whole world, there is still an idea that the money material, in terms of which all transactions are made, should be such that it commands the confidence of the general public for reasons other than that of its use as money.

(6) **Cognisability.** It should be cognisable; that is to say, it should be such that even an ordinary man may recognise it. In India, for example, there is what we call the fingering test for the Rupee. The sound of the Rupee is carefully marked, and it is then determined whether it is genuine or not.

(7) **Homogeneity.** Lastly, it should have homogeneity. It means that any part of a money material should be equal in value to any other part of an equal weight. Gold and silver satisfy this requirement very well; indeed. Any one tola of gold or silver, provided it is pure, is equal in value to any other tola any where in the world.

Certain other terms have also to be explained in connection with money and minting

Legal Tender. The money in terms of which a debt can be discharged according to the law of the country, is called legal tender. In India Rupees and currency notes are legal tender. The legal tender money may be so either to an unlimited or limited extent. Unlimited legal tender is that money in which payments upto any amount can be made. If, however, only limited payments can be made in terms of it, it is limited legal tender. Rupees and currency notes are unlimited legal tender in India, and so are 8 anna pieces; but other subsidiary coins are limited legal tender to the extent of Rs. 2 only.

Free Coinage. When the government of a country gives a right to the people to have bullion converted into the money of the land, under stated conditions to an unlimited extent, the system is known as free coinage. In India there was free coinage of silver up to 1893. Any body could then send a definite amount of silver to the mint and have it coined into Rupees under certain stated conditions. At that time, Rupees could be melted and converted into bullion and used as such. In the same way bullion or silver ornaments could be converted into Rupees; that is to say, there was no difference in the face value of the Rupee and its silver contents. Now there is a great difference. It is due to the fact that mints were closed in 1893 to the free coinage of silver.

Standard of Money. The system that regulates internal and external monetary exchanges of a country is known as the standard of money. There are several standards usually discussed

in books on Economics. Now, however, they are only of theoretical interest. In the first Great War, radical changes were introduced in the monetary systems of the world. The present war will bring in its wake still more fundamental changes. What is given below is therefore, only of an academic interest, and not of much practical utility.

Single legal tender system. In this system there is only one metal which is adopted as the money material. All monetary transactions are carried on in its terms, and it alone performs all functions of money. In European countries, England and America, gold was the single legal tender money. Even today most of these countries are in theory at least on a single legal tender.

Composite legal tender. When larger and smaller coins of different metals are minted, one of them being unlimited legal tender while others limited legal tender, the system is known as composite legal tender. In India, Rupees being unlimited legal tender, while subsidiary coins being only limited legal tender, the system may be known as composite legal tender. The difficulty, however, is that our standard coin is not standard in the real sense of the term. It is a token coin, that is to say, its intrinsic value is much less than its face value. While its face value is 16 annas, its intrinsic value is much less and during the present war it has become very small on account of a great reduction in its silver contents.

The Gold Exchange Standard. When for internal purposes the money material is silver or paper, but for external purposes gold is made available by the government of the country, the system is known as gold exchange standard. This was the system prevalent in India till 1913. For purposes of foreign exchange, gold was made available by the government of India, while for internal purposes, the silver rupee was the principal coin, assisted by the currency note.

Gold Bullion Standard. When gold coins do not circulate but gold bullion is made available in exchange for the current money of the country at a fixed ratio both for internal purposes, or for purposes of foreign payments, the system is called gold bullion standard.

Multiple legal tender system. When two or more coins of different metals form the standard of money in a country, all being unlimited legal tender and freely mitable, the system is known as the multiple legal tender system. When there are only two coins of two different metals circulating in the country at a fixed ratio to each other, the system is called bimetallic.

The Quantity Theory of Money. The quantity theory of money, like the theory of population, is perfectly correct if regarded as

a general tendency. But if it is taken in a dogmatic spirit, and if a sort of mathematical exactness is sought to be given to it, it will not serve any useful purpose, but may only create confusion in public mind. Taken as a general tendency, the Malthusian theory of population is fairly correct; but if geometrical and arithmetical progression are strictly interpreted it falls to the ground. The same is the case with the quantity theory of money. If it is taken to denote a general tendency, it is right, and helps to clear a number of things, which are generally not clear. But if an attempt is made to give it mathematical exactness and infallibility, it will have to share the fate of the Malthusian doctrine of population.

The quantity theory is very simple. It is an extension of the general theory of value to the case of money. It says that if the quantity of money in circulation increases at any time and other things remain the same, its value will fall to the extent of the increase in its supply. On the other hand, if its quantity decreases, its value will rise correspondingly. Stated as such, and without giving any mathematical formula to explain and illustrate it, the theory is correct enough; except that the proviso, other things remaining the same, is not found possible in actual practice. When the quantity of money in circulation increases, other things cannot remain the same. It is, therefore, idle to expect or suppose that which is not practicable. We may however, gradually introduce changes in other things also, along with a change in the quantity of money, and may then try to understand its effect.

In the first place we should remember that all paper money is expected to be based on metallic money. If the quantity of metallic money increases, the quantity of paper money also would increase in proportion to it. On the strength of metallic money or Government securities currency notes are issued and bank credits created. So, when there is an increase in the quantity of metallic money the quantity of paper money and bank credits would also increase proportionately. This means that there is an intimate relation between metallic and paper money.

In the second place we have to remember that the important function of money is that it facilitates exchanges; that is to say, it figures in every exchange transaction taking place in a country. If a money piece, a Rupee, exchanges hands ten times in a day, it is the same thing as if ten Rupees changed hands only once in the course of the day. So we can safely infer that the number of times a Rupee changes hands, has the same effect as an increase in their number. So an increase in the rapidity of circulation of money has the same effect as an increase in its quantity. Now we have two important factors; one, the quantity of metallic and paper money, the other, the rapidity of circulation

of metallic and paper money. These two things perform the same work that money has to do

But what is the work that money, assisted by its rapidity, has to perform? It is nothing else but to facilitate the exchange of commodities and services. We have, therefore, to find out the amount of work that money has actually to perform. If this work is much, the demand for money will be large; if it is little, the demand for money will be small. Consequently, if the production of wealth in a country during a particular period is small, and the same is the case with the production of services, the demand for money will not be very great. If, however, at a particular time the production of wealth and services increases considerably on account of great trade activity, the demand for money will correspondingly increase

We have now before us both the supply and demand side of money. The supply of money means its quantity together with its rapidity of circulation. The demand for money means the amount of wealth and services produced in a country which require exchanging. If the supply of money is much in relation to the demand for it, its value will fall; on the other hand if the demand for it is greater relatively to its supply, its value will rise.

Let us explain further the meaning of the phrase 'rise and fall in the value of money'. It may be asked what measures the value of money when money itself is a measure of value. The answer is that just as money measures the value of other commodities and services, in the same way other commodities and services measure the value of money. For example, if a Rupee usually gets in exchange for itself ten seers of wheat, but at a particular time it begins to get fifteen seers, it means that the value of the rupee in terms of wheat has become one and a half times as much as it was before. If it begins to get instead of ten seers only five seers of wheat, we can say that the value of the rupee has become one half of what it was before in terms of wheat. So we find that just as the Rupee measures the value of wheat, the latter also measures the value of the Rupee. As with wheat, so with other commodities and services. It is therefore, quite correct to say that all commodities and services combined, measure the value of the Rupee. So, when we say that the value of money rises, we mean that it can get a larger number of commodities and services in exchange for it; or that its purchasing power increases. If we say that the value of money has fallen, it means that the amount of commodities and services that money can get has become less; or that its purchasing power has fallen.

The theory thus becomes merely a demand and supply theory, without any great difference in its essential details. A formula in the form of an equation is generally given in order to illustrate the quantity theory of money. Fisher, the eminent American

economist, has done much to popularise the mathematical side of this theory.

The formula is given below, as it may be of some interest to those readers who are of of a mathematical bent of mind

One side of the equation is the quantity of money both metallic and non-metallic, together with their respective efficiency, velocity, or rapidity of circulation. The other side is the quantity of aggregate commodities and services that are exchanged in a country for money together with their respective prices. So, on one side of the equation we find the money power and on the other, the money work. This money power must be equal to the money work.

M represents the quantity of metallic money, and V its velocity. M' represents the quantity of non metallic money representing paper money and other credit instruments which perform the work of money, and V' the velocity or efficiency or rapidity of circulation of this non-metallic money. Thus the total money power in the country at any time may be represented by

$$MV + M'V'$$

This is one side of the equation,

On the other side, there is money work to be done by money power. This money work is represented by the quantities of different commodities and services that are going to be exchanged for money at different prices. If $q, q', q'' \dots$ represent the quantities of these commodities or services, and $p, p', p'' \dots$ represent the different prices at which they are to be exchanged, then the total money work to be done in the country at a particular time may be represented by $pq + p'q' + p''q'' + \dots$. This may be represented in mathematical language by $\sum pq$ which simply means the sum of $pq + p'q' + p''q''$ etc.. Now if all commodities and services are represented by T, and their prices by P, then the other side of the equation becomes simply PT. The two sides of the equation will now read like this

$MV + M'V' = PT$ where P stands for general prices and T for total quantity of goods and services, or, in short, Trade.

We have now the complete formula before us, and by proper manipulation and arrangement we can show how the quantity theory of money actually works. We may either say

$$\text{that } MV + M'V' = PT \quad \dots \quad (1)$$

or,

$$\text{that } \frac{MV + M'V'}{T} = P \quad \dots \quad (2)$$

The formula in its second form, indicates that P , that is to say, general price, is directly proportional to M and V , M' and V' ; which means that if the quantity of metallic money or its velocity, or non-metallic money or its velocity, increases, general prices also increase. We find in actual practice that it is generally correct. But P is inversely proportional to T , which means that if T increases, P decreases, and if T decreases P increases. Again, we find that this conclusion also is generally correct. We find that if trade activity increases, that is to say, if the demand for money increases, but its supply does not increase, then general prices tend to fall. On the other hand, if trade activity decreases, that is to say, if the demand for money decreases, and so the supply of money happens to exceed the demand for it, then general prices rise.

Fisher has given ample illustrations from history in support of his theory; and as conceded in the very beginning of this discussion the theory when regarded as an extension of the general theory of value proves very helpful in understanding some very complicated phenomena connected with prices. There was, for example, a general rise in prices in the whole of Europe when silver began to pour into this continent after the working of silver mines in America by Spanish explorers. There was a fall in prices after this influx had subsided and the population of Europe had increased. Once again there was a sudden rise in prices in gold using countries of Europe when Australian and Californian gold began to be imported near about 1844, and an equally sudden fall when the flow of this gold abruptly ceased after the exhaustion of the gold mines. In the first decade of the 20th century when gold mines were discovered in Transval, South Africa, general prices in Europe again began to go upwards. During the last Great War when all countries increased the quantity of paper money and the intimate connection between metallic money and paper money was broken due to the exigencies of the war, general prices shot up to a great height. It was only a few years after the war that prices began gradually to come down.

How general prices are affected by an uncontrolled supply of inconvertible paper money was demonstrated by the unimaginable fall in the value of the paper mark in Germany after her defeat in the Great War. How a financial panic which usually brings in its wake a sudden contraction of credit, can cause a phenomenal fall in prices was demonstrated by the great fall in prices during the serious depression of 1929-30 and after. The present war has shown to the peoples of the world in general and to Indians in particular how a disproportionate increase in the quantity of money (inconvertible paper money) raises general prices. But when all is said, it is better to regard the theory as a very useful equipment for qualitative analysis, not for quantitative measurement.

PAPER MONEY.

How the need for Paper Money arose. The various standards of money have been explained in the foregoing pages. They are, or have been, in use in different parts of the world at different times. So much progress has now been made in monetary affairs that metallic money has lost a great deal of its importance. Paper money has now begun to play a very prominent part in facilitating exchange transactions. Nominally, even today gold and silver are used as standards of value but for all practical purposes paper money now performs the work that metallic money used to perform in the last century, and paper money is now the main medium of exchange.

There was a time when gold and silver were used as important money materials not only as standards of value, but also as actual media of exchange. Then gold and silver mines played a very important part in the monetary history of the world. If more mines were discovered, more silver and gold could be produced and sent to different parts of the world. As the precious metals were used almost 50 per cent for monetary purposes and 50 per cent in arts, whenever new mines were discovered the quantity of money tended to increase; but when these mines were exhausted, the quantity of money, gold and silver, also tended to decrease. People were highly pleased when gold or silver mines were discovered, and grew anxious when there was a likelihood of their exhaustion.

During all these years attempts continued to be made by businessmen and economists to find out a substitute for gold and silver, so that the money of the country may not have to depend always upon the output of mines which was an uncertain factor. They wanted to find out means so that they may be able to regulate the quantity of money within the country independently of the vagaries of the precious metals. Ultimately their efforts succeeded. A paper substitute was discovered for money and it gradually developed and was perfected by them. This was paper money.

We need not enter into the history of paper money. It was used in one form or the other, first by ancient Indians, then by the Chinese and lastly by Europeans. It became popular from the 18th century, especially in England. At present, Governments of different countries, either directly or through a central bank, control the quantity of paper money which is used as a substitute for metallic money, and has in recent times almost entirely usurped its place. However, even today, gold and silver continue to form the standard of value, and paper money is accepted today ostensibly in the hope of its ultimate convertibility into some form of metallic money.

Convertible and Inconvertible Paper Money. Paper money which is convertible into metallic money on demand is called Convertible Paper Money. Currency Notes in India till quite recently and Bank Notes in European countries till the outbreak of the last Great War could be quoted as examples of Convertible Paper Money. Inconvertible Paper money is that which is not convertible into metallic money on demand. The question arises how is it possible for inconvertible paper money to circulate at all, and why do people accept it in exchange for their commodities and services? The answer is that there are many things which have to be done by people residing in a State in obedience to its orders whether they like them or not. When paper money is made legal tender and there is no other money circulating in the country, except the inconvertible paper money, people find themselves compelled to accept whatever money is offered to them by the government. Their only satisfaction is that others also have to do exactly as they do. They also possess confidence in the stability and integrity of their government. Even if paper money is not convertible, they continue to accept it as long as it continues to be accepted by others in exchange for their commodities and services.

If the government is wise enough, it will not let the quantity of inconvertible paper money increase to a large extent, that is to say, far in excess of the demand of the people for it. If governments keep the supply of inconvertible paper money restricted within limits, its value will not fall. Its purchasing power will remain much on the same level as that of metallic money and it may then be regarded as good as convertible. But those circumstances which make it necessary for a government to issue inconvertible paper money, also compel it to increase its supply in excess of the demand of the community. If it is done to a lesser extent the evil will be less; the value of inconvertible paper money will not fall very largely; if, however, the government loses all control over its finances, and goes on issuing inconvertible paper money for meeting its ever growing needs, the value of this paper will continue to fall and may at one time become almost nil. This happened in France during the French Revolution in the case of the Assignats, and in America after the Civil war in the case of Green Backs; also in Russia after the revolution of 1916, and in Germany in 1921, 1922 after the signing of the treaty of Versailles. India is also suffering from the evil effects of a serious rise in general prices which is due in a large measure to the issue of inconvertible paper money.

Paper money is now inconvertible in practically all countries of the world. This means that the holder of the paper note cannot get in exchange gold or silver money which it pretends

to represent. For this reason the value of money has fallen to a greater or lesser extent in various countries of the world and general prices have correspondingly risen.

Covered and Fiduciary. When paper money is convertible, a certain percentage of it is issued against metallic money, while some portion is issued against government securities. That portion of it which is issued against metallic money, is called covered; while that which is issued against securities is called fiduciary. *Appreciation.*

Application and Depreciation. When the demand for money is greater than its supply there is a rise in its value. This rise is called appreciation. On the other hand when its demand falls in relation to its supply, there is fall in its value. This fall is called depreciation.

Inflation and Deflation When more paper money is issued by the government then there is a demand for it, the phenomenon is called inflation; on the other hand when a large amount of paper money is withdrawn from circulation and there is consequently a reduction in the quantity of money, the phenomenon is called deflation. The result of an inflation of money is depreciation in its value, while that of deflation is an appreciation in its value. The terms inflation, and deflation, depreciation and appreciation, are relative and have reference to both the quantity of money in circulation and the demand for it.

The effects of inflation or deflation are different on different classes of a community. Let us take inflation. When there is an increase in the quantity of money, and consequently, a general rise in prices, different classes of the community are affected by this rise differently. Those who have fixed incomes like government servants, teachers, landlords receiving fixed rents, pensioners and so forth are affected adversely. While their incomes remain fixed, the prices of commodities and services go up, with the result that they cannot get in exchange for this fixed income as much of other commodities as before the inflation. Those whose incomes are not fixed but are variable, for instance traders, manufacturers and agriculturists, gain by inflation. Owing to a rise in the prices of commodities in general, there is also a rise in the price of those which they produce. It is a common principle, very well known to economists, and also to practical business men, that wages always lag behind prices. It means that when prices rise, wages also rise, but not to the same extent as the former. On the other hand, when prices fall wages also fall, but again not to the same extent as prices. Consequently when there is a rise in prices on account of inflation, the manufacturers get increased prices for the commodities that they produce, but they have to pay less wages

proportionately to a rise in prices. Also the price of raw material in their stock and that of the finished product not yet sold goes on rising with every rise in general prices. The producers of goods are therefore benefitted considerably and earn huge profits during the period of inflation. This is exactly what is happening in India to-day.

Creditors as a class suffer when there is a rise in general prices. They lent money at a time when its purchasing power was high, but notwithstanding a fall in its value they have to accept the same number of rupees as they had advanced some time back to the debtors. They know that the purchasing power of money that they now receive is much less than what it was at the time when they had lent it to the debtors, but they cannot help it. Debtors, however, gain by a rise in prices. They borrowed money at a time when its purchasing power was high, but they pay it back when its purchasing power is very low.

Index Numbers.⁺ A close study of general price movements in a single country or in the world at large, of their causes and cures, has become very important in recent times. As long as metallic money—gold or silver or both, and paper money intimately related to this metallic base, formed the media of exchange, the general price level though not stationary did not fluctuate very much. The output of gold and silver mines violently increased and decreased several times, and certainly caused inconvenient disturbances in the monetary world and so in the general price levels; but as this increase in the output of mines, and of the paper money definitely based upon it was controlled by the ultimate limited capacity of mines, and by the rigorously followed practices and monetary policies of the Central Banks of the world, the crises subsided and then passed away without causing any serious havoc. When by an accidental combination of circumstances the price of silver fell considerably between 1870 and 1890, France and a few smaller countries gave up bimetalism and India closed the silver mints. When again during the last Great war by an equally accidental combination of circumstances the price of silver began to rise relatively to gold, silver exchanges were raised and accumulated silver was demonetised or melted and the crisis was got over. Such disturbances though serious, were not man-made, and so passed away in the ordinary course. No one could suspect any design or carefully laid out plot on the part of any one to rob or injure any other. They were regarded more or less as natural occurrences, as events which must happen and which must be faced by all combined.

But things have now completely changed. Metallic money, gold or silver, has now ceased to circulate. Paper money, that was at one time intimately related to the quantity of metallic

money in the reserves of the Central Banks or Government treasuries, has now become free from all such restrictions. Currency in all parts of the world has now become 'managed' and so have the exchange rates as between different parts of the world. Policies are laid down by a few financial experts and the country has to submit to them. The quantity of paper money may be increased in any country whenever the experts so decide and the monetary rules and regulations are accordingly amended to fit in with the changed policy. At what price a certain commodity would be available to people depends not only upon the conditions of the demand for and the supply of the commodity concerned, but also upon the general level of prices prevailing in the country at that time. This depends upon the quantity of circulating media which is determined by a few experts. The repercussions of a general rise or fall in prices upon different classes of a community have already been briefly pointed out in preceding pages. Thus it is obvious that the well-being or otherwise of a community is now not so much in the hands of individuals themselves as in those of a few so called experts.

When conditions have become so unstable, and monetary changes affecting economic and social well-being of millions of people so frequent, it is very essential to devise some mechanism whereby these changes in price levels with their effects upon the welfare of various classes may be carefully and accurately measured from time to time to make comparisons and draw inferences therefrom. The main purpose of the study of economics being to increase economic welfare of a community as an important part of general welfare, it becomes very essential to measure and compare it from time to time. If a certain person's income increases by 50 p. c. but the prices of all those commodities and services that he has been consuming and using for a long time go up, by say, 75 p. c., his general economic position will have really deteriorated. This sort of study is of very great use and interest, and to make it possible and fruitful the device of Index Numbers has been devised and perfected. By this method not only can the true economic position of an individual or a class of individuals be determined from time to time, but adjustments that are found necessary can also be made.

When a certain person lends a sum of money to another for a stated period he expects to receive back the same amount that he now advances. His expectations are based on the assumption that the value of money, or its purchasing power, would not change in the meantime. But we know that this assumption is not well founded. For very short period this may be correct; or if nothing untoward happens, it may prove to be correct even for comparatively long periods. During the

present times of rapid changes, however, all such assumptions often prove to be incorrect, and it is found necessary to devise some method to measure the changes in the value of money.

For this purpose a few representative commodities are selected and their prices are noted down as at a particular period. These prices are represented each by 100 and the year when they are noted is called the Base year. After some time or whenever the necessity of comparison arises the prices of the same commodities are again noted down at the future date. Any increase or decrease in their respective prices is shown in percentages. If the price of an article was, suppose, Rs 2 in the Base year, say 1940, and it was then represented by 100. In 1943, suppose, the price of that article goes up to Rs. 3. This means that there has been a 50 p. c increase in its price after 3 years. So if the first price was represented by 100, it should now be represented by 150. In this way percentage increases or decreases in the prices after lapse of some time are recorded and an average increase or decrease as the case may be is determined. This would indicate a rise or a fall in the purchasing power of money, or to put it in other words, a rise or fall in general price; we can then proceed to find out which classes of community have gained by the change and which have suffered, and, what is more important still we will have before us an indication of this gain or loss in terms of percentage as shown by Index Numbers. Any adjustment that might be deemed feasible or just can then be made by mutual consent. Suppose we select the following articles and note down their prices as they stood in the last week of August 1939, our Base Year, and represent each price by 100.

Prices in Base Year 1939.

Wheat	10 seers	Per Rupee	100
Ghee	1 seer	" "	100
Ordinary cloth	6 as	" yard	100
Salt	16 seers	" Rupee	100
Silken cloth	Rs 2	" yard	100
Fine cotton cloth	12 as	" yard	100
Wood fuel	1½ mds	" Rupee	100
Oil	3 seers	" Rupee	100
Pulses	8 seers	" Rupee	100
Meat	6 as	" Rupee	100
Bicycles	Rs 50	" Seer	100
Cigarettes	3 as	" Unit	100
		" Packet	100

The articles above have been selected at random, just to explain the working of Index Numbers. After doing that, the next step should be to note down the prices of all these commodities as they are quoted, in December 1943. By simple

arithmetical calculation we should then enter against each price the percentage rise or fall in 1943 as compared to 1940. This is how we should proceed.

Prices in 1913 with the percentage increase or decrease.

Wheat	3 seers	Per Rupee	333·3%
Ghee	4 Chhataks	„ Rupee	400%
Ordinary Cloth	12 as	„ yard	200%
Salt	12 seers	„ Rupee	133·3%
Silken Cloth	Rs 8	„ yard	400%
Fine Cotton Cloth	Rs 2·4 0	„ yard	300%
Wood fuel	20 seers	„ Rupee	300%
Oil	1 seer	„ Rupee	300%
Pulses	3 seers	„ Rupee	266·6%
Meat	12 as	„ Seer	200%
Bicycles	Rs 150	„ Unit	300%
Cigarettes	4½ anna	„ packet	150%

A glance at the above figures would show that while some commodities register an increase of so much as 400 p. c. there are some that have increased only by 150 p. c. This is not surprising, where a large number and variety of articles is selected for comparison range of percentage differences would be found to be wider still. As an individual's economic position is affected not by purchasing any one commodity but by purchasing a very large number, we should now find out an average increase in the price of all commodities. This is, of course done by adding up all the percentage increases or decreases (in the present illustration there are no decreases, but there might be some in any other, or at another time) and dividing the total thus obtained by the number of commodities selected. In the present case this total comes to 3283·2. So dividing it by 12, the number of commodities, the result is 273·6 which shows that general prices as represented by the above commodities have gone up by 173·6 p. c. or have become almost 2½ times to prices in 1939.

This is one method of striking out the average and is called the simple arithmetical method. The other which is adopted at certain places is known as the method of weighing. It is contended by the supporters of this method that all commodities which figure in a person's consumption are not equally important from the point of view of expenditure involved. The consumption of salt, for example, does not cost an average family more than Re. 1 per month; but the consumption of wheat or ghee, cloth or milk, may cost anything between Rs 20 to Rs 50 per month. To give the same importance to a rise or fall in the price of salt as is given to that in the price of wheat or ghee is obviously not correct. If the price of salt becomes five times as much as it

was before, it would mean an increased expenditure only of Rs. 4 to the head of a family, but if the price of wheat or ghee becomes even twice as much it would mean an increased expenditure of anything between Rs 20 and Rs 50. It is suggested therefore, that different commodities should be "weighed" in accordance with their relative importance in the budgetary amount of consumption of a certain person. Thus if only Re 1 is spent usually on salt, Rs 10 spent on fuel, Rs. 20 on wheat and Rs 30 on Ghee, then salt should be treated as one commodity, fuel as 10, wheat as 20 and ghee as 30 commodities. If we redraw our list keeping the point in view, it would appear as under—

Wheat	100	×	20	—	2000
Ghee	100	×	30	—	3000
Ordinary cloth	100	×	20	—	2000
Salt	100	×	1	—	100
S. cloth	100	×	10	—	1000
F. C. Cloth	100	×	10	—	1000
Wood fuel	100	×	10	—	1000
Oil	100	×	4	—	400
Pulses	100	×	8	—	800
Meat	100	×	4	—	400
Bicycles	100	×	2	—	200
Cigarettes	100	×	8	—	800
<hr/>					
100 × 127					12700-127=100

Corresponding to the redrawn up list above, the other list after noting down the increase or decrease in the respective prices would stand as follows—

Wheat	333·3%	×	20	—	6666·6
Ghee	400%	×	30	—	12000
O cloth	200%	×	20	—	4000
Salt	133·3%	×	1	—	133·3
S. cloth	4000%	×	10	—	4000
F. C. cloth	300%	×	10	—	3000
Wood fuel	300%	×	10	—	3000
Oil	300%	×	4	—	1200
Pulses	266·6%	×	8	—	2132·8
Meat	300%	×	4	—	1200
Bicycles	300%	×	2	—	600
Cigarettes	150%	×	8	—	1200

Adding the figures in Column 3, and dividing by 127, the number of commodities assumed after weighing, we get the figure 304·98 or roughly 305 (38732-127=304·98). This means that by changing the method of taking averages the result has been modified appreciably. While the previous method indicated a rise in general prices by 173·6 p. c. the

new method indicates a rise by 205 p c. This is an increase of about 32 p c and cannot be easily overlooked. In any case, whatever the method adopted, we get an approximately correct idea of the extent of the rise or fall in general prices or of the fall or rise in the purchasing power of money. Having formed this idea, or having made the exact calculations on the basis previously agreed upon we can proceed to utilise the knowledge thus obtained in either forming an accurate estimate of things around us, or in even making necessary and desired adjustments if circumstances permit.

Uses of Index Numbers

To illustrate the uses of Index Numbers let us first suppose that a certain person lends Rs 500 to another person in 1939. The other person after keeping the money with him for four years returns it in 1943. According to the ordinary terms of contract as noted down in a Pro-note the borrower had to repay, besides the agreed interest the same amount of money that he had borrowed and that he has done. But has the lender received back in principal the same value that he had lent. The answer must be in the negative. A glance at the Index Numbers as given above would show that about Rs 300 would purchase the same amounts of commodities in 1943 as Rs. 100 did in 1939. According to this calculation the lender of Rs. 500 in 1939 would get back the exact value in terms of commodities only when he is paid back Rs. 1,500 instead of Rs. 500. This does not happen in ordinary cases and circumstances. So we conclude that if there is a general rise in prices, the lenders suffer while the borrowers gain.

Again let us suppose that the wages of a certain class of labourers were Rs 20 per month in 1939, but in 1943 these labourers have begun to receive Rs. 40 per month instead of Rs. 20. To all appearances it is a great gain. It might begin to be said that the economic position of this class of labourers has improved a great deal, their income having become double of what it was in 1939. But a second thought would show that this inference is erroneous. While the income as measured in terms of money has gone up by 100 p c, the prices of commodities, that these labourers consume and, therefore, their expenses have gone up as shown by the Index numbers, by about 200 p c. Their economic position instead of improving has really deteriorated and they find themselves much worse off with double their previous income than they were before the general rise.

The economic position of labourers and of all types of people can be compared from time to time and correct inferences drawn when not only the changes in their incomes but also those in their cost of living are carefully recorded

and compared. In the present dynamic state of society Index Numbers play a very important part in making correct comparisons and inferences possible. It should be noted in this connection that the Base year selected should be one that either just precedes an event of great historical importance, as the year 1913 being the year just preceding the last Great War, or the year 1939 being the year of the present World War; or it should be one when general economic conditions have been normal. The second point worth consideration is that the larger the number and variety of commodities selected for Index Numbers, the more correct would be the result. Along with commodities, certain important services are also included as for example Railway and Tramway fares, house rents, services of domestic servants, medical men, teachers etc. The inclusion of these services in the list makes it look more realistic. The third point is that while a general index number has its uses it becomes necessary to frame special Index Numbers by including some that are used and not including other commodities that are not used by certain classes for which these Index Numbers are framed. If, for example, it is intended to find out the economic position of village cultivators in India in 1943 for the purpose of comparing it with that in 1939 for this purpose certain Commodities and services are meant to be selected. It would be of no use in this case to include in the list commodities like motor cars, electric fans, furs silk or woollen clothes and services like those rendered by Tramways and telephones. Lastly all prices both in the Base year and the year of comparison should be correctly noted and care should be taken not to mix up wholesale prices with retail ones. The Index Numbers should either be for wholesale prices or for retail prices.

Gresham's Law and its Limitations.—There is a general tendency among people, especially children to keep back fresh and new coins when they are received by them and to pass on those that are old or dirty to others in their daily transactions. This psychological bias results in the more dirty and the more worn out coins circulating freely, while new and fresh ones are kept back for a longer time. If it were possible and permissible to keep back fresh and new coins for longer periods or to use them otherwise than as money one would see only old and worn out coins in the market while fresh ones would remain either in cash boxes of people or in the petty money bags of children and women or in the melting pot. It was this tendency of human nature which was carefully observed by Gresham and then enunciated in the form of a law, known after him. The law simply states that bad money drives out good money from circulation.

It should be understood carefully what is meant by good and bad money. Worn out and old coins are bad as compared to new and fresh ones. Therefore if both fresh and old coins are thrown into circulation side by side, new ones would be kept back for as long as possible or even melted if they are full weight and standard coins, while others would be passed on in the course of exchange transactions. In the market, therefore, very few good coins but many bad ones would meet the eye. This is called the first application of Gresham's law.

As compared to metallic money, old or new inconvertible paper money is bad. If, therefore, both inconvertible paper money and metallic money are put into circulation side by side, paper money will drive out metallic money from circulation. When both are legal tender, every one would like to pass on to others that which he considers to be less valuable than the other. This is the third application of Gresham's law, the second will be explained after discussing Bimetallism.

There is one important condition or limitation of Gresham's Law. It is that if the quantity of money in circulation is in excess of the needs of the society, only then will bad money drive out good money from circulation, otherwise not. Let us suppose that the need of a particular community at a particular time is for fifty million money units, paper and metallic, taken together. If fifty five million units are thrown into circulation, consisting of forty million paper units and fifteen million metallic, five million metallic units will be driven out, while fifty million units which are required to satisfy the need of the community will remain in circulation. The same would be the case if old and new coins are thrown into circulation together. If there is no excess, both will remain in circulation. If there is excess, good coins to the extent of the excess will disappear.

The principle called Gresham's Law, was not really discovered by Gresham. Long before he wrote any thing about it, it was known to many people engaged in business; but the form in which it was enunciated was a new and striking one. It has therefore been associated with his name.

Bi-metallism — As its name implies, bi-metallism signifies that monetary system in which two metals, or coins of two metals, circulate side by side, and both are legal tender to any amount. Three essentials of bi-metallism have been laid down. One is that both metals should be unlimited legal tender. The second, that both should circulate according to a fixed ratio with each other. The third is that both should be freely coinable. If all the three conditions are satisfied the system can be called bi-metallic. If, however, even one of the three is not fully satisfied the system cannot be called bi-metallic whatever other name may be given to it.

Bi-metallism came to be adopted after gold had become plentiful enough to be used for monetary purposes in European countries. Previous to the discovery of Australian and Californian gold mines the amount of gold in Europe was very small. Silver was plentiful; at least it had become so after the discovery of silver mines in America by the Spanish during the 15th and 16th centuries. During this period silver was coined in very large quantities by European countries, especially on account of the development of trade and commerce with the East.

In the middle of the 19th century, near about 1848, gold mines were discovered in Australia and California. Gold was adopted as the standard of value and also to a considerable extent as a medium of exchange by England long before this. But France had not adopted purely gold standard. There was a large amount of silver in France, as well as in other countries, and also in America. So silver was not given up though gold had also begun to be minted side by side with silver. It was not now so scarce as not to be adopted even as one of the two metals used for monetary purposes. But the newly discovered gold mines began to show signs of exhaustion soon after, as the deposits turned out to be of an alluvial nature. So it became relatively scarce, and in purely gold using countries like England there occurred a fall in general prices. France which has always been logical and experimental wanted to induce other countries to adopt the system of bi-metallism, which would increase the metallic base for money. In France gold and silver coins circulated side by side, at a ratio fixed by the State. Through its mint both gold and silver were freely coined and both were unlimited legal tender. This was bi-metallism in the true sense. England in the meantime had become so much accustomed to the use of gold that she did not look kindly towards silver as a second money metal. When gold became scarce there was nervousness in England but the bi-metallic countries like France had nothing to fear. If gold became scarce, silver became relatively abundant. So there was no fear of the scarcity of money material in France, because the monetary system of the country was broad based.

There was, however, one very serious difficulty in adopting bi-metallism. If one metal became scarce in the market, its value rose in terms of the other. But the rate between the two, which once fixed by the mint of a bi-metallic state could not be changed again and again in accordance with the changes in the market rate. This created a difficult and complicated situation. The market ratio between gold and silver became different from the mint ratio between the two metals, and this discrepancy in the two ratios set in motion huge forces.

Finding that the market ratio between gold and silver is 1 to 16 suppose the rate fixed by the mint between gold and silver is 16 pieces of silver to one piece of gold. As long as this market

ratio remains the same. i.e. 1 to 16 things will go on smoothly. But if after sometime gold becomes scarce in the market and so dearer as compared to silver, with the result that one piece of gold becomes equal in value to 17 pieces of silver the difficulty would commence. The mint ratio which is 16 to 1 cannot be altered, as mint regulations are not changed every now and then. The effect of this change in the relative value of gold and silver in the market would be that silver would become over valued at the mint, that is to say while in the market 17 pieces of silver are equal in value to one piece of gold, the mint would continue to rate 16 pieces as equal to one piece of gold. This would make silver more precious as coin than as bullion. No body therefore would like to use silver as bullion but would like to use it as coin. It would therefore begin to be sent to the mint for purposes of coinage, while gold would begin to be used more as bullion than as coin. Gold coins would therefore be melted and used as bullion, while silver bullion would be sent to the mint to be used as coin; where it would fetch a higher value. The result would be that in the bi-metallic country only silver coins would be seen in circulation, while all gold coins would disappear. They would either be melted in the country and used as bullion or would be exported to foreign countries where they would get in exchange 17 pieces of silver.

The second application of Gresham's law was left unexplained in the earlier part of the discussion. It is that the overvalued coin in a bi-metallic country tends to drive out the undervalued from circulation the former being bad money and the latter good. *In the present case silver, which is over valued would drive out gold; which is under-valued.* These terms 'over valued' and 'under valued' should be carefully understood. They apply only to the valuation of the mint with regard to these two metals. It is the mint that over values silver and under values gold. The market can neither over-value nor under-value anything. In the market, values are fixed with reference to different forces of demand and supply which come into operation and the values so fixed are just values. Obviously this cannot be the case with the mint where the ratio once fixed cannot be altered for a considerable time. So at one time the French mint would be required to coin vast quantities of silver bullion sent to it for coinage, while almost the entire quantity of gold coins would be melted and converted into bullion. Although theoretically the system would be called bi-metallic, in reality under these conditions, it would only be silver, because gold would not circulate as coin, but would be used as bullion.

Next suppose a change of a different character takes place in the relative value of gold and silver. After sometime, suppose there is a fresh supply of gold on account of the discovery of new gold mines. The supply of silver remaining constant the

value of gold would tend to fall as compared to that of silver. Suppose it now becomes 15 to 1. This would clearly mean that with the mint ratio as 16 to 1 silver would now be under-valued, because its real value as determined in the market, is 15 pieces in exchange for one piece of gold, but the mint ratio being fixed, 16 pieces of silver would continue to be given in exchange for one piece of gold. Under these circumstances, Gresham's Law would again come into operation, and, the over-valued metal, this time gold, will drive the under-valued metal, silver, from circulation. The French mint again have to coin vast quantity of gold, which was only a few years back melted into bullion, while vast amount of silver bullion that it had minted only recently will all be melted again into the form of bullion. This time only gold would circulate in the country, while silver would be used for purpose of arts or for the purpose of hoarding or exporting.

The critics of the system said that the correct name for it should be alternating not bi-metallic system as one or the other metal would always be over valued at the mint on account of changes in the market ratio between the two. The people of France and even outsiders made large profits at the cost of the Government by continuing to send cheaper metal to the mint and getting in exchange the dearer metal. By selling it in the market they would make a profit and would then repeat the process. Heavy profits were thus made by outsiders and French speculators, while the mint, which represented the Government, was put to a great loss and inconvenience.

On account of these difficulties the French Government moved England to join a federation so that bi-metallism might be adopted by a number of countries, and the area of operations may be widened. It was pointed out that if a number of important countries joined this federation and consequently the area of operation of bi-metallic countries was enlarged, there will not be any difficulty in maintaining the system. As long as only one country remained bi-metallic and others were mono-metallic, there would be a tendency for the latter to take advantage of the mint regulations of the former. People of mono-metallic countries would continue to send the over-valued metal to the mint of the bi-metallic country, and would continue to take advantage of the difference in the price ruling at the mint and in the market. The French also pointed out that a bi-metallic country performed a great service to the world by absorbing the metal which was comparatively abundant and discharging that which was comparatively scarce, thus correcting the balance that had been upset by world forces. Let us make this point more clear.

Reverting to our previous illustrations, if the ratio between gold and silver becomes seventeen to one, on account of the comparative abundance of silver and the comparative scarcity of gold, the effect would be that silver, being over-valued, would begin to drive out gold from circulation, in other words that silver bullion would begin to be sent to the mint for purposes of coinage, and the gold coins would begin to be melted and used as bullion. This would mean that France, a bi-metallic country would begin to give to the markets of the world the comparatively scarcer metal gold and would begin to absorb the comparatively abundant metal, silver. By this action of the bi-metallic country, the discrepancy between the relative values of gold and silver would tend to diminish and ultimately disappear. This is known as the compensatory action of the double standard. If other countries of the world also adopted bi-metallism, its defect would become less prominent, and its good points could be utilised. England was however very firm in her resolve against bi-metallism. Her people had become accustomed to gold in their every day transactions and dealings with one another and with the rest of the world and therefore did not like to give up their old and tried system of gold, mono-metallism. France, on the other hand had large supplies of silver on hand and so did not like to lose a great part on its value by demonetising it. She formed a union of a few countries all of which adopted bi-metallism but England remained aloof and so the system could not take a firm root.

The interest in this controversy suddenly disappeared towards the *beginning of the 20th century, because of the discovery of gold mines*. The scarcity of gold could no longer be advanced as an argument for bi-metallism. During and after the Great War renewed interest was shown in this controversy. There arose a great demand for gold from all sides on account of a great rise in prices due to inflation, also because of the changed banking policies of different countries of the world, especially America and France, the available supply of gold in the world became insufficient to cope with the demand. There were again suggestions from some quarters to adopt bi-metallism, but nobody took up the question seriously. New policies and new monetary theories held the field during the interval of the last Great War and the present world war. As things appear at present it is probable that both mono-metallism and bi-metallism would fall out of memory and would remain only of historical interest.

CHAPTER XVI

CREDIT AND BANKING

Credit.—Credit is that system of exchange in which a seller of a commodity or service agrees to receive the prices of the commodity or service or the commodity itself after a certain time, with or without any addition to it or its price.

Credit is granted in several ways. When a merchant sells some articles to a customer and agrees to receive the amount of the bill after some time, he grants credit. When a furniture dealer sends some articles of furniture to a certain person and agrees to receive a certain sum of money every month in return, he also grants credit. In this case he agrees to receive back the same articles, but with an addition of money payment every month till the final date of return. As the articles are expected to deteriorate to some extent as the result of constant use, the charges include not only interest on the amount of money invested by the furniture dealer in the purchase of the said articles, but also something towards their repair and ultimate replacement.

When a money lender lends a certain sum of money to a person in return for a promissory note or a registered bond, it is a case of the granting of credit. The lender does this in expectation of a reward for the service that he performs to the borrower. This reward takes the form of the payment of a certain sum which bears a percentage relation to the amount, but called interest. It will be observed that in each of the cases cited above two prominent features are involved, one is the postponement of the payment on the part of the buyer or the user of the commodity or services, the other is the undertaking of some risk inherent in all postponed payments by the seller of the commodity or service. To the extent that the risk or trouble or at least waiting involved in the process is more or less, the charge from the borrower will be raised or lowered.

The cases mentioned above in which credit is granted in one form or the other are of a very simple character. The different ways in which credit is now granted by credit granting agencies have now become varied and highly complex. Their study is both important and fascinating. Apart from the simple method of granting credit on the strength of a Pro-note or a mortgage deed or even pawned ornaments; which together cover a vast field of credit transactions in India, there is another which is chiefly in vogue as between one trader and another. It is the system of *Hundi* or an inland bill of exchange. Before discussing the activities of banks which constitute the most important and powerful credit organisations in every country, we would like to explain in details the working of a *Hundi*,

How a Hundi works.—A cloth merchant buys cloth worth Rs. 10 000 from a whole sale cloth dealer in Delhi but does not pay money just then. He is prepared to pay it after 3 months. The method that is adopted under such circumstances is this. The wholesale dealer writes on a piece of paper a sort of letter whose form and words are specified, to the purchaser of goods asking him to pay Rs 10 000 after 3 months, either to himself or to any person named in this letter, and asks this purchaser of goods to sign his name on that side of the paper where all this is written. This paper, when in a formal and printed form is called a Hundi or a bill of exchange. The seller or the wholesale dealer, is called a drawer of the bill while the buyer or the cloth merchant is called the drawee a person upon whom a bill of exchange is drawn. The cloth merchant after he has signed his name across the face of this bill, is said to have accepted it. His liability is now complete and the bill of exchange, after acceptance, becomes a negotiable instrument in the eyes of the law, that is to say, it becomes an article which can be bought and sold in the market.

After getting it accepted, the cloth merchant may adopt any of the three courses open to him. He may either wait for 3 months, and after the expiry of the period collect the money from the cloth merchant. Or he may hand over this hundi to some one else, whom he himself has to make some payment. If he has to pay Rs. 15 000 to a certain person, he may give this hundi, together with Rs 5,000 in cash. The hundi will be accepted by the other person for something less than Rs 10,000 because it cannot give him command over money at once, but will do it only after the expiry of a certain period. Any way, the wholesale dealer can now hand it over to some one else in payment of his own debts at a price. The third alternative open to the wholesale dealer is to send it to a bank and ask for cash at once. If both the drawer and the drawee are well known to the bank, the latter will pay the present worth of the hundi to the drawer. The present worth of a hundi is calculated after deducting interest, for the months, that the hundi has to run, from the amount for which it has been drawn. After deducting the discount the balance is handed over to the wholesale dealer, who gets an immediate command over resources by this method. Henceforward the real supplier of credit is not the wholesale dealer, but the bank.

It may be asked, why a wholesale dealer, who sells goods worth Rs. 10,000 to a certain person, agrees to accept from the bank less than Rs. 10,000. If the rate of interest is 6 per cent, and the bill has to run for 3 months, he will be given by the bank only Rs. 9850. There appears to be a loss to the wholesale dealer, but in reality there is none. Business men always make allowance for such facts when fixing prices of goods. In the

present case the seller could not have given goods to the cloth merchant worth more than Rs 9850, as he very well knew that he would have to get the Hundi discounted from a bank, or would have to wait himself for 3 months and incur a loss of Rs 150 during this period, if he had not made sufficient allowance for this in time.

So we find that a bill of exchange serves the important purpose of facilitating exchange transactions, and in this sense does the work of money. The Hundi drawn by the wholesale dealer and accepted by the retailer serves the purpose of Rs 10,000 at that time at least. A transaction is completed without the transference of any money from one person to the other. The retail seller gets goods without having had to pay any money; while the wholesale dealer gets money from the bank. So, ultimately, the waiting is done by the bank, which also undertakes the risk that is involved in all credit transactions. This is a very popular form of giving and seeking credit among Indian businessmen and a Hundi is always regarded equivalent to cash.

Banking. Banks play an important part in credit transactions. A retail dealer cannot grant credit to his customers unless he himself gets credit from the wholesale dealer. The latter cannot continue to grant credit to his numerous customers, that is, retail merchants unless he himself gets credit from some other institution. Such an institution is a bank. So, ultimately it is the bank, that facilitates credit transactions.

Banks are of different varieties and descriptions. There are industrial banks, agricultural banks, co-operative banks, exchange banks, and commercial banks. When the word bank is used without any prefix, a commercial bank is usually meant. We will first deal with the functions of a commercial bank. The Imperial Bank, the Central Bank, the Allahabad Bank, the Punjab National bank, and so on, are all commercial banks.

Functions—Banks perform the following main four functions.—

- 1 Acceptance of deposits ✓
2. Granting of loans.
- 3 Affording cheque facilities ✓
4. Discounting of Bills. ~

(1) **Acceptance of deposits.**—A bank is an institution which helps in the transfer of money from one place to another place and from one person to another person. It is with this object that it is started. As in the case of every productive enterprise, a bank also is started with a certain amount of capital which is subscribed by its share-holders. The capital with which a

company or a bank is started, and upto which it is permitted to sell shares to the public, is called its authorised capital. Out of this authorised amount, it is optional with the directors to issue any portion of it for public subscription. This is called issued capital. If the whole of this issued capital is taken up, or subscribed by the public, there remains no difference between issued capital and subscribed capital; but if, as often happens, the whole amount issued is not taken up, then that which is taken up is called subscribed capital. Out of this amount, again, there is a certain portion which is called up by the directors under the rules of the company and the rest is left with the subscribers for the time being, to be called up when necessity arises. So, that amount which is called up and paid by the subscribers, is called, paid up capital. Sometimes, there is a difference even between the subscribed amount and paid up amount. If certain persons having offered to subscribe a certain amount, and having sent the application money along with their application for shares, are, however, unable to pay further amounts, their paid up amount is forfeited by the bank. But this is not of very great practical importance. So, only that amount of capital which is actually paid up is of real importance, as it constitutes the working capital of the bank or, for the matter of that, of any other concern, with which it starts its business.

- The working capital of a bank is not in itself sufficient to enable it to carry on the business of lending. From the very start, therefore, it has to attract deposits from outside. The amount of its own capital acts as a sort of security in the eyes of those from whom the bank seeks to attract deposits. The larger, therefore, the amount of paid up capital of a bank, the greater its prestige in the public.

Bank deposits are of two kinds, fixed and current. Fixed deposits are amounts of money left by individuals or institutions with banks for a definite period. The bank pays interest upon them at a certain rate. It undertakes to repay this money at the fixed time, together with the promised interest. The interest paid is usually very small, but the security that banks offer to the public is so great that people are prepared to accept only a very small interest from them. Big banks do not offer more than 2 per cent or even $1\frac{1}{2}$ per cent on fixed deposits for a year. Fixed deposits are not of very great importance to the banks. They are not usually very large because of the small rate of interest, on the one hand, and the liability to pay some interest on the part of banks, on the other.

The more important form is the current deposit. A man may deposit his money with a bank on the understanding that he may withdraw it any time he likes. Current deposits are payable on demand. They do not carry any interest, as the bank is liable

to repay the entire amount whenever demanded, and, therefore, cannot invest it in any business for more than a very short period.

The question arises why a bank takes the trouble of keeping up long accounts and paying out large or small sums of money as demanded by customers, when it cannot utilise this money freely. The amount received under fixed deposits can be advanced to others at a higher rate of interest, because the bank knows quite well that it cannot be demanded before the expiry of a definite period. It can thus make some profit out of fixed deposits; but in case of current deposits it is not so obvious wherein the gain of the bank lies. The question is interesting, but the answer is very simple. The centuries old experience of bankers throughout the world has convinced them that under normal conditions not more than a fixed percentage of current deposits is demanded at any one time by the depositors. For example, if in a certain bank the amount of current deposits is Rs. 100,000, the experience of Indian bankers is that not more than 50 per cent of it will be usually demanded by depositors at any one time. The experience of German, French, and Italian bankers is that not more than 25 per cent of the current deposits is usually demanded at any one time. The experience of English and American bankers is that this percentage is seldom more than 10. Some leading banks of England are confident that at no time would this demand exceed 5 per cent. When that is so, there is no reason why Indian banks should not utilise 50 per cent of their current deposits in the same way as they utilise their fixed deposits, and why German, French Italian, English and American banks should not utilise 75.90 or 95 per cent of their current deposits for purposes of lending to others. As a matter of fact, all these banks lend money received under current deposits in varying degree. As a matter of fact it is only by lending money received on current account that it is possible for banks to carry on their business. They form the backbone of commercial banks.

Creation of Current Deposits One simple way of creating current deposits is for a person to deposit a certain amount of money with a bank and get a pass book from it in return. The amount deposited is shown on the credit side of the depositor's account and is also entered in the banks registers. In this way the bank makes itself liable to pay on demand the sum of money to the depositor or customer. When the depositor wants to withdraw a certain amount of money from his deposits, he draws a cheque upon the bank for this amount. A cheque is only a special form of a bill of exchange which is drawn by a depositor upon a bank, ordering the latter to pay a certain sum of money either to the person named therein, or to the bearer of the cheque, or to someone else named by the person in whose

favour the cheque is drawn. When the bank receives this cheque the amount is paid up, and it is debited to the depositor's account. This is a very simple, not an important way of creating current deposits. The other way which we now proceed to discuss is at once important and interesting.

(2) Granting of loans—Suppose a person wants to borrow Rs. 5,000 from a bank for some purpose. He goes to the manager of the bank who after satisfying himself as to the solvency of the customer agrees to advance him the money. When necessary preliminaries are gone through and the time comes for the actual payment of Rs. 5,000 the manager advises the borrower not to actually take away Rs. 5,000 from the bank but to open a current account and continue to draw cheques to the extent of his credit whenever he needs money. The borrower agrees and after opening a current account leaves the bank with only a pass book and a cheque book. In this case a loan has created a deposit.

This apparently simple transaction between the borrower and the bank is of very great significance in the commercial and banking world. By this simple act, credit has been created, and no money has passed from one person to another. It should also be noted that both the bank and the customer have become indebted to each other. In virtue of the loan account that has been opened that day for Rs. 5,000, the customer has become indebted to the bank. He has written a promissory note in favour of the bank, and has also got it signed by another person. In addition to this, he has perhaps deposited some sort of security, and has promised to pay interest on the sum. But the bank has also become indebted to the customer in virtue of the current account opened that day. By virtue of this account the customer has acquired a right to demand up to Rs. 5,000 from the bank any time he needs it. So there is mutual indebtedness between the bank and the depositor.

A current deposit of Rs. 5,000 has been created without any body having deposited a single rupee with the bank and a loan of Rs. 5,000 has been granted by the bank although not a single rupee was handed over to the borrower. Then why should this amount not go up to Rs. 50 lakhs or Rs. 50 crores under the same arrangement. There is only one thing that acts as a check to the increase in current deposits in this manner. It is the fact that the depositor is entitled to demand the money back at any time. According to the experience of banks in India, there should be at least 50 per cent cash to meet the demand liabilities of the bank under normal conditions. Therefore, although it is very easy for banks to create deposits in this way, yet they have to maintain a safe proportion of cash which must be with them to meet withdrawals. Even then if not to the full extent, at least to the extent of 50 per cent in India and to a much larger

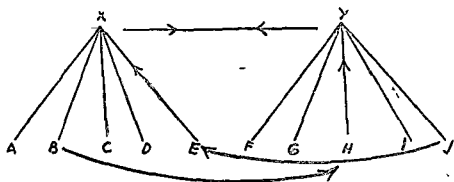
extent in more advanced countries of the world banks economise in the use of money by creating credit in this manner.

(3) Affording cheque facilities.—It will be interesting to know how it is possible for banks to economise in the use of money by the method of creating deposits. A bank has a large number of customers, who have either deposited certain amounts under fixed or current deposits or have borrowed money from it according to the method described above. Those customers who have current accounts, draw cheques upon it, whenever they want to withdraw money. But in the course of their business, they have also received a number of cheques in payment of their dues. So they send these cheques also along with the cash that they receive in the course of the day to the bank for deposit. It often happens that different customers of the same bank draw cheques in favour of one another. As they all have their current accounts with the bank, the cheques are not usually cashed but are sent to the bank for being credited to their accounts. The bank, consequently, makes a change in book credits and book debit, only and very little money actually goes out of it. The following diagram will make this point clearer.

X is the bank, while A, B, C, D, and E are its customers who keep their accounts with it. Suppose A, draws a cheque in favour of D, upon his bank for Rs 500. When D receives it, there are two courses open to him. One is to get cash from the bank, but because he does not need in just then, and also because he has got a current account with the bank, he sends this cheque to his bank to be credited to his account. Before this transaction A's account stood at Rs 2000 and D's at Rs 1000. After the drawing of this cheque and its being sent by D to the bank, changes will have to be made in the personal accounts of the customers. Rs 500 will be transferred from A's account to D's. The position of their respective accounts will now be A .. Rs. 1500, D Rs 1500. A's account has been debited by the bank to the extent of Rs 500 and to the same extent D's has been credited.

Let us pause to consider what actually happened. A purchased goods from D and so paid him the money in the form of a cheque. D received the amount, as is evident from the fact that his account now stands at Rs 500 more than it did the previous day or before the receipt of the cheque. The bank did not pay Rs 500 to D as ordered by A, but only credited D's account to the extent of the sum. Not a single Rupee changed hands and the whole transaction was beautifully completed. In this way different customers of the bank continue to draw cheques in favour of one another, and the bank continues to make changes only in their personal accounts from time to time.

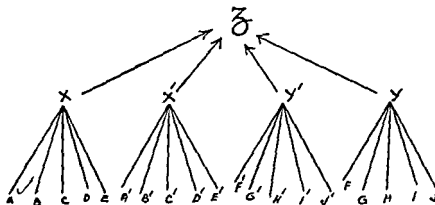
But it is possible that some people may not be keeping accounts with this particular bank, but may be keeping it with another, named Y. In this case the diagram will be something like this



X has A, B, C, D, E as its customers, while Y has F, G, H, I, J. Suppose B draws a cheque in favour of H for Rs. 500. H sends it for being deposited in his account to his bank Y. Now suppose J has to make a payment of Rs 600 to E and consequently draws a cheque upon his bank, Y in favour of E. E after having received it sends it to his bank, X, for being deposited in his account. In this way, during the course of the day, a number of A's customers draw cheques upon X in favour of Y's customers which reach Y; while a number of Y's customers draw cheques upon their bank, Y, in favour of X's customers, which reach X, in the ordinary course. Towards the end of the day it is found that X has to pay Rs 5000 to Y on behalf of its customers, while Y has to pay Rs. 4500 to X. It is not necessary for Rs 5000 to be first paid by X to Y and then Rs. 4500 to be paid by Y to X. Only the difference of Rs 500 may be paid up by X to Y. So we find that although transactions, amounting to Rs. 9500 took place in the course of the day, only Rs 500 at the most, were needed for all the transactions. Money has been economised to the extent of Rs 9000.

But it is not necessary even for Rs 500 or more or less, to change hands every day. If one day X has to pay Rs 500 to Y, it is quite possible that the next day Y may have to pay Rs. 600 or Rs. 400 to X. It is therefore, not necessary that the difference may be paid every day, but it may be paid up after every month or an arrangement may be made with a bigger bank. Just as X and Y dealing with their individual customers, economise in the use of money by making entries in the personal accounts of their customers, in the same way, a bigger bank may deal with these two or more, and may continue to make alterations in their accounts if they deposit some amount with this big bank. If

X deposits Rs. 1000 with this big bank, and so does Y and any number of other banks which may be functioning in a big city or area, the whole thing can go on beautifully. This case may be represented diagrammatically in the following way



Here Z represents the big bank while X, Y, X', Y' and so on, are the banks that have their respective accounts with Z. Each one of X, Y, X', Y' have their own customers. The customers deal with their banks. These banks deal with the big bank. In this way there may be a number of banks in a particular area or in a big country. Even big banks like Z may be in quite a large number in a country. All these big banks may in their turn like to keep their accounts with the Central bank of a country, like the Bank of England or the Indian Reserve Bank, so that their respective claims may be cleared out of the amounts deposited by them in the Central Bank, and money may not have to go from one to the other.

In this way we find that monetary transactions take place on a large scale, and yet very little money is actually needed to facilitate them. There are several other points which deserve attention. In the first place customers of banks need cash now and then. Many cheques are not deposited with banks but are collected in the form of cash. In the second place, all those in whose favour cheques are drawn may not have their accounts with banks. In such cases money has to be withdrawn. So we find that if in a country saving habit is developed to a large extent, and people of each class and position keep accounts with banks, while payments are made by means of cheques, a great deal of economy in the use of money can be made resulting in a great advantage to the country.

It is in this way that money is economised by banks in their daily transactions. In countries like England and the United States of America where banking habit is almost universal, there is a great economy of money, and trade and industrial activities

91 November

are carried on without much need for metallic or paper money. In Germany, France, Italy, and other European countries, the banking habit is not so universal. The cheque is really a product of the English brain, and it is very popular among English speaking countries of the world. On the continent notes are more popular than cheques. It shows a less advanced banking mentality. In India, the use of cheques is confined only to big cities, like Bombay, Calcutta, Ahmedabad, and so on. In certain other cities, which are not trading, commercial or manufacturing centres cheques are drawn and received, but they are usually converted into cash immediately they are received. It is very rarely that a cheque received from some one is deposited with a bank and not encashed. Because of this non-banking habit of the people of India banks are obliged to keep at least 50 per cent of their demand liabilities in the form of cash. This results in a slower economic development of the country, as this large amount of cash has to lie idle with the banks and cannot be utilised for other purposes. It is obvious that banks can help industrial and commercial development of the country only to the extent that money is economised.

4 Discounting of Bills—The last function of discounting of bills now remains to be examined. As a matter of fact, the discounting of a bill, is only a particular method of lending money, and so it really comes under the second functions of granting of loans; but it is so important that a separate treatment is necessary.

In the beginning of this chapter an illustration was given of how a wholesale dealer, after having sold goods worth Rs. 10,000 - to a retail dealer, and after having drawn a bill of exchange upon him and getting it accepted, gave it to a bank for discounting and took Rs 9850/- in exchange for it. The bank discounted the bill, and took upon itself the risk, and also the waiting for three months. The discounting of bills is a very convenient method of lending money which is open to a commercial bank. By their very nature, commercial banks cannot afford to lend money for long periods to their customers, because most of their liabilities are demand liabilities. They do not want to keep their money locked up for a considerable period, but like to lend it only for short periods. From this point of view, a bill of exchange affords the best opportunity of lending money for short periods and proves a very good investment. An expert bank manager so arranges his business that bills discounted by him fall due every day of the month so that the supply of money is always plentiful, and can be used as occasion arises. Its collection is very easy, because it has a security of two business men behind it namely that of the drawee and also that of the drawer. If for one reason or the other, the drawee fails to meet the bill when it falls due, the bank has a legal remedy not only against the drawee but also against the drawer.

Advantages of Banks.—Banks perform very useful services to the community. By affording deposit facilities, they collect numerous small sums of money from scattered sources, and make effective use of this aggregate amount. There are men who have money but do not know how to use it to the best advantage. There are also men who know how to make the best use of it but have no money. Banks act as intermediaries between two such classes of people, and after attracting money from the former, advance it to the latter. By offering small rates of interest they promote, to some extent, the investing habit among those who perhaps would not save if there were no inducement of a small rate of interest coupled with absolute security. By affording facilities of current deposits, and payment by cheques, they create banking habit among the people, a habit which forms the basis of all economic progress in modern times. They also create credit and facilitate trade and commerce by advancing money to those who need it. They facilitate the transfer of money from one place to another. Big banks have a number of branches in different parts of a country. They have also business relations with other banks carrying business in other parts of the country or in other parts of the world. In this way they help a great deal in the transfer of goods between different places in the same country, and also between different countries in the world. There are some banks called Central banks, which also exercise the function of issuing notes. This privilege was highly valued and coveted before the development of the cheque system, but in modern times it has lost much of its glamour and is not regarded as very important.

Balance Sheet of a Bank.—The balance-sheet of a Bank is a statement regarding its assets and liabilities as stated at the close of a particular year. There are many kinds of accounts that have to be maintained by banks, as well as other limited companies. For example there is the capital account, fixed and current deposits account, loan account and so on. The balances of all these various accounts, as they stand on the closing day of the year, are shown in a statement which is called a balance sheet.

A careful study of the balance sheet of a bank gives an approximately correct idea of its position and progress. We have purposely used the word approximately, because a balance sheet does not always give a correct idea of the position of a bank or of any limited concern. There are several ways of showing the various items. Various figures are sometimes shown together in such a way that it is very difficult to form an exact idea regarding the real financial position of the institution. Nevertheless, a balance sheet gives a fair idea of the general financial position of a company.

We give below the Balance Sheet of the Bank of England on two different dates,

Banking Department**July 2, 1913.****LIABILITIES.**

Proprietors' Capital	..	£	14,553,000
Rest	...	£	3,345,455
Public Deposits	...	£	14,737,272
Other Deposits	...	£	46,633,003
Seven Day and other bills	...	£	17,053
Total		£	<u>79,285,793</u>

ASSETS.

Government Securities	...	£	12,765,505
Other Securities	...	£	40,661,662
Notes		£	24,271,745
Gold and Silver Coin		£	1,595,921
Total		£	<u>79,285,793</u>

July 14, 1943 (30 years after)**LIABILITIES**

Proprietors' Capital	...	£	14,553,000
Rest		£	3,332,472
Public Deposits	..	£	5,298,651
Other Deposits	...	£	200,509,418
Total		£	<u>223,693,541</u>

ASSETS

Government Securities	..	£	154,502,838
Other Securities	...	£	20,922,970
Notes		£	47,317,525
Gold and Silver Coin		£	950,208
Total		£	<u>223,693,541</u>

The various items under liabilities and assets may be briefly explained. By 'Proprietors Capital' is meant the amount of capital subscribed by the shareholders of the Bank. This item has remained unchanged since 1833. It is divided into fully paid up stock. By 'Rest' is meant the reserve fund. There is a tradition that it should never fall below three million pounds. The standing of a bank is indicated by its reserve fund. 'Public deposits' mean the sums of money which are deposited by the

Government in the Bank under various heads. The Bank of England, though not a government bank is yet a semi-state bank, and performs practically all functions of a state bank. The government carries out all its monetary and financial functions through it. 'Other Deposits' include deposits from other banks and customers. This item includes to the extent of about 75 per cent, deposits of other banks, as the Bank of England is also the bankers' bank. Seven Day and other bills are issued by the Bank on its own authority and bearing its acceptance. They are payable seven days after sight. They are now chiefly used by persons travelling abroad. This item is now not shown separately and is included under 'Other Deposits'.

Under the assets side, Government Securities' represent the investment of the Bank in various government securities of the British Government. 'Other Securities' represent its investments in those stocks which are not British Government securities. They include Indian, Colonial or Foreign securities, and first class commercial bills.

The position of the Bank of England, as shown by the two balance sheets is exceptionally strong. There are no fictitious assets. The building of the Bank, which is considered to be worth more than a million pounds is not mentioned under the assets side. The amount of reserve is quite large and so is the amount of the Proprietors' capital. The entire banking structure of England rests on the Bank of England. If it fails, the entire banking system in the country is sure to fail. It should not be forgotten however, that the entire resources of Great Britain are behind this great institution.

ISSUE DEPARTMENT

(July 22nd 1914)

LIABILITIES

Notes issued	...	£	57,014,410
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ASSETS.

Government debt	...	£	11,015,100
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Other securities	...	£	7,434,900
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Gold coin and bullion	...	£	32,554,410
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Silver bullion	...	£	—
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Total		£	57,014,410
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(January 5th 1944) (About 30 years later)

LIABILITIES

Notes issued	...	£	1100,241,718
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ASSETS

Government debt	... £	11,015,100
Government securities	... £	1088 348,646
Other securities £	622 834
Silver coin ..	.. £	13,420
Amount of Fiduciary issue	£	1100,000,000
Gold coin and bullion	... £	241,718
		<hr/>
Total	.. £	1100,241 718
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CHAPTER XVII.

SYSTEMS OF BANKING

The United Kingdom --England may rightly be called the home of modern banking and English gold-smiths the fore runners of modern bankers. Their practice was to issue receipts to those who deposited money or other valuables with them for safe custody, specially when leaving the country for some time. These receipts were often returned to them not by the same persons to whom they were issued in the first instance, but by others, who had perhaps paid the original holder a certain amount in return for them. The latter quickly grasped the potentialities of the system and began to utilise it for the extension of their own credit. Originally these receipts were issued only when a certain sum of money was actually deposited with them. Later on, the goldsmiths began to issue them even to those who wanted to borrow money. On account of the great credit of the goldsmiths these receipts passed readily and easily from hand to hand for the amount for which they were issued and facilitated a number of exchange transactions before being finally returned to the issuers for payment. Such receipts later on assumed the form of notes issued under the names and signatures of the various firms of goldsmiths.

The London goldsmiths set up after sometime the business of pure banking, and also continued to issue notes up to 1844. The business of issuing notes upon the strength of one's credit could be started by any one if he thought that his notes, or promises to pay money in fixed denominations on demand were likely to be accepted by the general public. The policy of *laissez faire* being widely prevalent in England no interference on the part of the Government in this behalf was considered necessary or justifiable, and things were left to take their own course.

The result was that after sometime there was a great crash in the year 1815 immediately after the declaration of peace with France, beginning with the failure of a number of note issuing banks. This resulted in very great hardship to those who had lost their all. As a consequence of these failures, public attention was drawn towards this point. The Bank of England being the most important banking institution in the country was issuing notes ever since it was started. Like other institutions, the Bank of England was also quite free to issue any number and amount of notes, without any restriction of any sort. After these events opinion became sharply divided on the question of unrestricted note issue. Some people held the view that the purpose of issuing a note by a bank or any authority, was simply to provide currency to people, and afford them convenience. They said that the issue of notes should be limited by the

amount of gold that could be kept as a reserve against them. This was the Currency School which maintained that banks should issue notes and create credit only in return for specie.

There were others who maintained that the issue of notes should be left to the discretion of bankers, who should limit the circulating currency in accordance with the needs of business and trade. They held that there should be no limit placed on the issue of notes except in regard to their ready convertibility. If there was any excess it would be presented for encashment. They therefore, did not think that the holding of gold was necessary to cover every note issued by the bank. This was the Banking School.

The Bank Charter Act of 1844 — The Bank Charter Act was consequently passed in 1844, and as its provisions show the Currency School had won the day, although the Act embodied to some extent the views of the Banking School also by providing for a limited issue of notes against securities. The following are some of its most important provisions —

- (i) The bank was to be divided into two distinct departments, called the issue and the banking departments respectively.
- (ii) The issue department was authorised to issue notes against securities to the amount of 14 million pounds, but any further issue in excess of this was to be covered by gold and silver in reserve.
- (iii) The silver in reserve was not to exceed $\frac{1}{4}$ th of the gold held.
- (iv) Any one might demand notes from the issue department in return for gold bullion at the rate of £3-17s. 9d per ounce standard.
- (v) If, after the passing of the Act, any country bank ceased to issue notes, the Bank could obtain an order in council, empowering it to increase its fiduciary issue by two thirds of the lapsed issue.
- (vi) The bank was to publish a weekly return of both the departments in the London Gazette.
- (vii) No further banks of issue were to be established, and existing banks, losing the right of issue, on account of bankruptcy, amalgamation, the opening of an office in London etc, could not resume such issues.
- (viii) Every existing bank of issue was to forward a weekly return of its issues to the Stamp office for publication in the London Gazette, and its issues were not to exceed its average circulation for the 12 weeks preceding the 27th April 1844, otherwise the right of issue would be forfeited.

The real aim of the Act was to ensure the absolute convertibility of the note issue. It was a far sighted measure also for regulating paper currency, thereby minimising the dangers of inflation. It also aimed at checking speculation in prices, and securing stability in foreign exchanges. It was in 1921 that the last private bank of issue ceased to exist. Now there is no note issuing bank in England and Wales, except the Bank of England.

The Bank Charter Act of 1844 was criticised mainly on the ground of inelasticity of its note issue. It was said that at the time of emergency, the amount of money could not increase and so it would remain restricted and inelastic. It was also pointed out that inspite of the rigours of the Act, the bank could not check the crises of 1847, 1857 and 1866 which were relieved only when the Act had been *suspended*, and the fiduciary issue of notes had increased. In the same way in 1914 at the outbreak of the war, the Bank of England was allowed by the Treasury to increase the note issue against securities, and only then was the demand of the people for paper money satisfied to some extent.

Amendment of the Bank Act in 1928.—From 1844 to 1914, the fiduciary portion of the note issue of the Bank of England was rigorously kept within the limits set by the Act, and so, there being no provision for its increase in times of emergency, the note issue remained inelastic and did not help much the economic development of the country. As a matter of fact, if banks other than the Bank of England had not invented the use of cheque, the economic progress of England could never have been as much as it actually turned out to be. Between 1914 and 1928, the government treasury notes of £1 and 10 shillings each also circulated, but the note circulation of the Bank of England remained within the same limits as before.

After the war, it began to be stated frankly and vehemently that the stringent provisions of the Bank Charter Act had proved a failure, and a much greater elasticity in the note issue was needed. In view of such criticisms, the new Act named The Currency and Bank Notes Act was passed in 1928. The previous restriction on the Bank's power to issue notes below £5 was removed and it was given authority to issue notes of £1 and 10 shillings. *The limit of the fiduciary issue, which under the first Act was £14 million, but had gone up to about £19 million was now fixed at £260 million.* No increase in the fiduciary portion of the note issue above this limit was to take place except by the sanction of the Treasury. Any authority given by the Treasury was to apply only for a period of 6 months, though it might be renewed for another six months. In any case, expansion of the fiduciary circulation was to remain in force after 2 years without the permission of the Parliament.

In spite of the increase in the fiduciary portion, and the express conditions laid down for the expansion of the note issue under certain conditions, the critics are of opinion that the note issue is still inelastic and that the powers given to the Bank of England to increase the uncovered portion of the note issue will not be freely exercised. The Macmillan Committee also recommended that the amount of the note issue which may be permitted to the Bank be raised to £380 million and may in exceptional cases, be raised even to £400 million. But England could remain on gold standard only for a brief period of about six years. On September 21, 1931, the gold standard was suspended and the whole basis of note issue was revised. The Bank of England note was now no longer as good as or better than gold. It was now no better than inconvertible paper whose value was maintained by keeping it unlimited legal tender on the one hand and by keeping under control its supply on the other. By 1939 the note circulation had reached the figure of £525 millions and during the five years of the present war the amount has reached the stupendous figure of £1100 millions.

India.—Banking in India will be discussed under several heads

Indigenous Bankers—Banking of a highly developed character was carried on in very early times in India. It included acceptance of deposits, granting of loans, discounting of bills, and issuing not exactly of notes, but of a kind of paper which could pass current for a considerable time, and could facilitate a large number of transactions before being presented for final encashment. There were traditional banking houses belonging to certain well known families, and they were well-known through their numerous connections and a large number of branches and agencies. They carried on such functions in connection with banking which are now a-days performed by modern banks. They advanced money not only to ordinary industrialist but also to Rajas, Nawabs and even Central governments whenever they stood in need of money.

With the development of modern banking the importance of such indigenous bankers has decreased to a considerable extent. However, they still carry on their functions in certain big towns, though a great change has come over their character. They are now only money lenders, not bankers. A money-lender, as the word clearly signifies, is one who only lends money at a certain rate of interest. He neither accepts deposits nor does he perform any other functions of a bank. These indigenous bankers have now degenerated, more or less to the position of money lenders, although they advance larger sums of money and for this reason, deal in mortgages and with men of substance. Since the development of modern banking Indian bankers or shroffs have

begun to act as middle men between joint stock banks and their customers. Under present conditions, banks in India can never hope to be able to come into direct touch with the affairs of the vast trading community in India. In the capacity of middle men, the shroffs, who are in intimate touch with the trading community of the area, bring large volumes of business to banks, and enable them to give accommodation, which without their assistance the banks would not be in a position to give.

A business man requires Rs 25,000, for further investment in his business. He does not know the manager of any joint stock bank, or any branch of the Imperial or Reserve bank, but he knows a shroff who lives in the same area where he carries on his business. He approaches him and seeks his assistance. The shroff, who has perhaps already accommodated a large number of such traders, does not find himself in a position to accommodate this trader out of his own funds. So he goes to a bank, and takes a bill or hundi drawn by this trader for re-discounting under his endorsement. The banks although they may not know the drawers are very well familiar with these shroffs and so gladly re-discount the hundi offered by him. In this way the shroffs or indigenous bankers help trade and industry, on the one hand, and modern banks on the other. According to the census of 1941, the number of people engaged in banking, money lending etc is about 310 000 but nothing is definitely known about the volume of their business. The internal trade of India is much more important than her external trade. So we may surmise that the amount of trade financed by, or through indigenous bankers, must be considerable. Here we should make a distinction between indigenous bankers and money lenders. The former grant loans, accept deposits and discount trade bills; the latter only grant loans. Another distinction that may be noted is that the former lend money for purposes of production; while the latter lend for purposes of consumption.

On account of some questionable practices that were brought to light the policy of different provincial governments in India has stiffened against the activities of money lenders. The part that a village money lender plays is the money economy of the country is no doubt very important. He performs a very useful function, but on account of the misdoings of some of his co-professionals, stringent measures have begun to be adopted against his activities, some of which are quite fair and leave nothing to be desired. The unsatisfactory condition of the Indian cultivators is due to a variety of causes, and cannot be attributed to the operations, real or imaginary, of the money lenders alone. However several legislative measures have recently been enacted in one province after another. It is expected that as a result of these restraining and supervising measures some at least of the evils that had crept into this system will diminish considerably.

even if they do not disappear altogether. What is really needed at present is to amend the system, not end it. The needs of the cultivator in a village can only be satisfied by a village money lender, not by the Imperial Bank

The indigenous bankers have also lost much of their importance and usefulness. In this connection the Central Banking Enquiry Committee have suggested certain measures in order to restore their old position and prestige. They say, "With this purpose in view the Reserve Bank and the Commercial Banks in India, may use such indigenous bankers for the collection of cheques and bills, in the same manner as they use joint stock banks or co-operative banks" They have also suggested the following additional lines of advance:—

- (a) Amalgamation of the business of the local indigenous bankers with the joint stock banks
- (b) Formation of a co-operative bank of indigenous bankers which would discount Hundies of members, and re-discount the same with the Reserve bank
- (c) Adoption of bill broking as an integral part of the business of indigenous bankers.

Indian Joint Stock Banks Previous to 1906, there were very few Joint Stock banks. Most of those in existence were started by Europeans; but within the last 40 years or so, specially after the Swadeshi Movement of 1907, the number of such banks has gradually but steadily increased. The movement originated from Bombay, when in 1906 the Indian Specie Bank was established. These banks made great progress during the first few years of their existence. Later on, some of them found themselves in difficulties, and there was a large number of failures in 1913. After this serious set back the joint stock banks improved their position, which they maintained till 1921. After this there was again a setback, which continued for a few years, but is now not seriously operative.

There have been several causes of the failures of the Indian joint stock banks. In the first place, Indians have not much experience of practical banking. In the second place, some of the directors are not very scrupulous in their dealings with the bank and its money. In the third place, the shareholders do not exert any influence upon their own directors, for improving the financial position of their institution. Other big banks under English control do not help them when they need help. The People's Bank of India failed in 1913, not of any weakness in its assets, investments, or policy, but mainly because of the virulent campaign of one paper against it which was not checked by the Government, and the refusal of the Anglo Indian Banks to give financial aid at the time when it was badly needed.

Growth of Joint Stock Banking The position of Joint Stock Banking is at present quite strong and promising. The number of banks with Capital and Reserve of Rs. 5 lakhs and over is 58, that of banks with Capital and Reserve between Rs. one lakh and Rs. 5 lakhs is 125. The total number of Joint Stock Banks in India having capital and reserve of Rs. one lakh and over is now about 180. Their paid up capital is about Rs. 1100 lakhs and reserve about Rs. 700 lakhs. The deposits exceed Rs. 130 crores and cash balances are about Rs. 30 crores. In recent years joint stock banks have increased in strength and influence especially in South India. And yet their influence and power is nothing as compared to that in other important countries. Moreover, they suffer from competition of Imperial Bank and its branches and so many powerful Exchange Banks. Since the starting of the Reserve Bank of India their position may be said to have improved theoretically as the bigger and even smaller banks are now qualified to receive assistance and advice from the Reserve Bank provided they conform to rules and regulations devised for the purpose. There is very great scope for the improvement of joint stock banks. They can try to follow along the lines laid down for them by their great compeers or competitors like the Imperial Bank and others. On the one hand they should be as economical in their management as the indigenous banks and on the other they should be as efficient in their working as modern banks.

Besides scheduled banks of Rs. one lakh capital and reserve and over there are many small banking and loaning companies incorporated under the Indian Companies Act. Their number is now approximately 1800. Out of this large number, there are only about 250 who have a paid up capital of Rs. 50,000.

The Imperial Bank The Imperial Bank of India was formed on January 27, 1921, by amalgamating the three Presidency Banks of Bengal, Bombay and Madras. The control of the Imperial Bank of India is entrusted to a Central Board of directors with local boards at Calcutta, Bombay and Madras. The Central Board of Directors consists of

- (a) Presidents, Vice-Presidents and Secretaries of the local boards.
- (b) One person elected from amongst the members by each local board.
- (c) One Managing Director and a Deputy Managing Director appointed by the Central Board.
- (d) Not more than 2 non officials nominated by the Governor General in Council.

Under the Imperial Bank of India Act of 1920, provision was made for the increase of the capital of the bank. The capital of

the Imperial Bank is 11½ crores of rupees, divided into shares of Rs. 500 each. The paid up capital and reserve on 31st Dec 1940 was 11.23 crores of rupees. The Bank, till April 1935, the date when the Reserve Bank started operations, enjoyed government balances free of interest, and acted as government banker in the matter of remitting funds on behalf of the government, and took an important part in the management of the public debt. It also acted, in some measure at least, as the bankers' bank, but its main business was with private customers. It could not lend money on the security of immovable property. It had its London Office, but it was not permitted to deal in foreign exchange, except on behalf of the Government. So it could not facilitate foreign exchange business of the country, and was a purely commercial bank, with government support behind it. The situation was not considered satisfactory, as it could not very well serve the purpose of a central bank. For this reason, a full fledged central bank, namely, the Reserve Bank was started in 1935.

The Imperial Bank, however, performed some useful service for India during the 14 years that it remained in existence. It started 161 branches, 26 being started at places where there was no banking facility before. The government balances enabled it to do internal business conveniently, and with great facility. On account of the large number of branches, it gave considerable facility to its customers, in the transfer of money from place to place at reasonable rates. Apart from these, the Imperial Bank did not perform any really important service to the country. It could not do any foreign exchange work as it was not permitted to do so. It could not encourage industrial or agricultural development of the country, because it was a commercial bank and could not lend money for longer periods. It did not help the co-operative banks also to the extent that it was expected.

Many members belonging to the Co-operative Banks complained before the Central Banking Enquiry Committee about the unsympathetic treatment of the Imperial Bank with the co-operative societies. There were some who said, though in whispers that it patronised European and Anglo-Indian firms, and did not readily help Indian firms, even though the latter satisfied all conditions laid down by it except that of the colour of their skin! With the government money equal to an average of about Rs. 20 crores at its disposal, during the 15 years of its existence it did not so much help the commercial banks as it competed with them on unfair terms. No one, therefore, is going to shed a single tear at the lowering of its status and power, as a result of the coming into existence of the Reserve Bank of India.

Balance Sheet of the Imperial Bank

January 13, 1944

LIABILITIES

	Rs.	a.	p.
Paid up capital	... 5,62,50,000	0	0
Reserve fund	5,75,00,000	0	0
Fixed deposits and other accounts	. 2,09,10,44,000	0	0
Sundries	3,50,51,000	0	0
Total	... 223,98,45,000	0	0

ASSETS.

	Rs.
Investments in Govt Securities	... 127,13,50,000
Other investments	2,75,85,000
Loans	... 13,76,18,000
Cash credits and overdrafts	. 19,68,33,000
Bills discounted and purchased	6,39,02,000
Dead stock at cost, less depreciation written off	... 1,69,41,000
Sundries (Stationeries stamps etc.)	... 1,62,53,000
Cash in hand and with the Reserve Bank of India	... 48,12,63,000
Balances with other banks	2,81,00,000
Total	. 223,98,45,000

Exchange banks The exchange banks doing business in India are really the branches of banks that have their head quarters in foreign countries. They work in important parts of India, like Bombay, Calcutta, Karachi and Madras. It is very difficult to find out the details of their capital, or their business, as they do not publish any separate statement with regard to their business in India, yet we know that the proportion between their total business and Indian is very small. They are mainly concerned with financing India's foreign trade, especially with their own head quarters; but also, if possible with other countries of the world. All those important countries which are engaged in foreign trade with India, have their banking establishments in Bombay or Calcutta. Japan, for example, used to have a branch of the Yokohama Specie Bank, and this branch gave every possible facility to the exporters of goods to or from Japan. In the same way, big banks in England, France, Germany, Italy and America have their branches in India. Sometimes several banks working in a single foreign country

open their branches here. At present the number of such banks or their branches is 18. Out of these, 16 are engaged in exchange business in connection with trade and industry while two have specialized themselves in looking after the interests of the tourists and giving them every facility. The business of several banks has now been suspended due to the present war.

It is a very regrettable feature, indeed, that our foreign trade is controlled by foreigners through their own banks. Our joint stock banks are not strong enough to carry on this exchange business. The Imperial Bank was prohibited from doing it; the Reserve Bank although given this permission has not made any advance in this direction. All profits in the form of commission on our extensive foreign trade are still earned by foreign banks. But this is not all. These branches of foreign banks have also begun to make inroads into the internal business of the country. They have begun to discount internal bills, and have begun to attract deposits by offering slightly higher rates, because their profits are greater than those of other Indian banks. The Central Bank of India also opened a branch in London, for the purpose of carrying foreign exchange business between India and London. This was the first instance of a purely Indian Banking concern opening a branch of its own in a foreign centre. The total deposits of all Exchange banks secured in India have increased from Rs 10 crores in 1900 to Rs 85 crores in 1940.

Treasury System of the Government of India. Before the establishment of the Imperial Bank of India, the balances of the Government, in different Tehsils and District head quarters, were kept in Government treasuries, under lock and key, and under a careful watch. Since 1920, its balances began to be deposited with the Imperial Bank and so the importance of treasuries has diminished to a considerable extent. Still, some amount is kept even now and is utilised profitably. With this money, government performs some amount of banking work. Hundies are sometimes sold at one treasury upon another, so that money may be transferred conveniently, from one place to another place. This system has got its advantages. In the first place, it enables the government to utilise the surplus of one place at another place, where there is some deficiency. In the second place, some commission can also be earned by this means. Private people can get as much facility in these treasuries, as they can get from the best banks. Some thing like that is also done by currency offices in different parts of India.

Post Office Saving Banks These banks have been started for the purpose of developing the habit of thrift among small investors. The post office saving banks, at present, receive deposits at a small rate of interest, and also issue postal cash certificates, which provide a still better means of saving to those

who have slightly larger sums of money at their disposal. The amount of deposits is now about Rs 80 crores. The postal cash certificates have become very popular and have mobilised the savings of the lower middle class of people who would not invest their money elsewhere. The following figures show total deposits, and after calculations, deposits per head of population, in several countries of the world. The following figures relate to pre-war years

Country.	Total Deposits (approximate.)	Deposits per head of population (approximate.)
Canada ...	63,000,000	6
India ..	551,000,000	2
Italy ...	2,676,000,000	62
Japan ...	3,832,000,000	47
Newzealand ..	700,000,000	456
United Kingdom	4,360,000,000	98
United States .	3,344,000,000	24

Defects in Indian Credit Organisation. (i) People in villages still prefer rupees to a government currency note. When such is the case, the question of introducing the cheque in villages cannot arise for a long time to come. People in cities and towns, no doubt, prefer government currency notes to rupees because the latter are cumbersome. Some of them have also begun to keep their accounts with banks, but what happens, in general, is that the cheque after being drawn by the customer of a bank in favour of another person, is usually encashed, because this other person generally does not keep a bank account. So the development of credit, which is regarded as the greatest achievement of modern banks is practically unknown in the country. There are a few big cities where payment by cheques is quite popular among trading and business communities. Such are Bombay, Calcutta, Madras, Delhi, Cawnpore, Ahmedabad, Colombo, Lahore and a few others. This is nothing really, as compared to the extent of the country or its potentiality. So, what is needed most is the spread of education amongst masses, so that they may become familiar with the cheque when it is given a Hindustani garb.

(ii) Credit has been developed, to a small extent in this country, only for the purpose of financing trade and commerce. This branch was, perhaps, regarded as more essential than others as it included foreign trade also in which Englishmen were interested. Any way, whatever the cause, we find that only commercial banking has developed to some extent in India. Other branches of banking namely industrial, agriculture, co-operative etc, have been altogether neglected. The commercial banks are so constituted that they cannot undertake to finance

agricultural or industrial activities. This side of credit is absolutely undeveloped, and it needs immediate attention, if the industrial development and agricultural regeneration of the country is seriously undertaken. It is not difficult to tackle the question of agricultural credit more satisfactorily. The village money lender cannot meet the requirements of the cultivator, except those which should not be met. It is, therefore necessary that agricultural, co-operative and land-mortgage banks should be started in selected rural centres. We have discussed land-mortgage banks and co-operative banks, under co-operation.

(iii) Uptil now the note issue was highly inelastic. There was no co-ordination between the banking and note issuing activities of the country. The function of issuing notes was performed by the government; while that of banking was performed by the Imperial Bank. Since April 1935, however, both these functions have been transferred to the Reserve bank, and this defect of lack of co-ordination resulting in inelasticity has now disappeared.

(iv) On account of the wide extent of the country, and due to the very little mobility of capital as between different places and different occupations, the Indian money market is not one unified whole. Different rates of interest prevail in different areas. There is no co-ordination between them at all. Sometimes there is a great surplus of funds in one centre, and a great scarcity in another. Due to the absence of a proper contact with one another, and a proper understanding between the different constituents of the market, interest is not uniform and varies widely from place to place. The Imperial Bank of India was expected to bring about this co-ordination between various centres; but, if possible it made matters worse by its policy of discrimination on racial and other grounds. In this respect it proved no better than any private bank, controlled by a single individual with pronounced bias of an undesirable character. It never behaved like a semi-state bank that it was, and disappointed all well wishers of the country. The Reserve bank of India has also as yet not fulfilled all expectations.

The Reserve Bank of India The Reserve Bank of India Act was passed by the Legislative Assembly in the year 1935 and the Bank began to function from the first of April of that year. From this date the Reserve Bank took over the management of the currency department of the Government of India, after creating a special department. The amount of gold in the gold standard reserve which was about £40 Million was transferred to it and included under the assets of the Currency department. The banking department also began to function from July 1, 1935. The clearing house was given under, known as the issue department, its charge from this date.

The share capital of the Reserve bank is Rs. 5,00,00,000 in shares of Rs. 100 each, fully paid up. The reserve fund of Rs. 5,00,00,000 is provided by Government to the bank in the form of Government Rupee Securities.

Management. The management of the bank is entrusted to a central board of directors which is composed of (a) The governor and two Deputy governors appointed by the Governor General in Council (b) Four Directors nominated by the Governor General in Council (c) Eight directors elected on behalf of the share holders on the various registers (d) One government official nominated by the Governor General in Council.

Business which the bank may transact. The Bank is authorised to carry on and transact the following commercial business:—

The accepting of money on deposit without interest; purchase, sale and re-discount of bills of exchange, and promissory notes with certain restrictions, the making of loans and advances repayable on demand or not exceeding 90 days against the securities of stocks, funds, and securities (other than immovable property) against gold coin, or bullion, or documents of title to the sum, and such bills of exchange and promissory notes as are eligible for purchase or re-discount by the bank; the purchase from or sale to scheduled banks of sterling in amounts of not less than the equivalent of Rs. 10,000; making advances to the Governor General in Council and to local governments, repayable in different cases not later than 3 months from the date of making the advance, the purchase and sale of Government Securities of the United Kingdom, maturing within 10 years from the date of purchase and the purchase and sale of securities of the Government of India or of a local government.

The Bank is authorised to act as an agent for the Secretary of State for exchange purpose; for the Governor General in Council or the local government of India for the purchase and sale of gold and silver, for the purchase, sale transfer etc of bills of exchange, securities and shares, for the collection of the proceeds whether from interest or dividends of any securities or shares; for the remittance of such proceeds by bills of exchange payable either in India or elsewhere, and for the management of public debt.

Right to issue Bank Notes.—The sole right to issue bank notes in British India is vested in the Reserve bank, and at the commencement, it shall issue currency notes of the Government of India transferred to it by the Governor General in Council, and from the date of such transfer the Governor General in Council shall not issue any currency notes. The issue of bank notes shall be carried on by the bank in the issue department.

which shall be separated and kept wholly distinct from the banking department

Obligation to sell or buy sterling—The bank shall sell to, or buy from, any person who makes a demand in that behalf on its various offices sterling for immediate delivery in London at a rate not lower than 1 shilling 5, 49/64 pence, and not higher than 1 shilling 6, 3/16 pence respectively; provided that no person shall be entitled to demand or buy or sell an amount of sterling less than £10,000.

Publication of the Bank Rate.—The bank shall make public, from time to time, the standard rate at which it is prepared to buy or re-discount bills of exchange, or other commercial papers eligible for purchase under the Act.

The Bank shall publish weekly the accounts of both the issue and banking departments in the Gazette of India. It shall also create an agricultural credit department. The following is the Balance Sheet of the Bank as on Jan 21, 1944.

The Balance Sheet of the Bank as on Jan 21, 1944

Issue Department.

LIABILITIES

	Rs	a	Rs.	a.
Notes held in the banking Department	..	8,54,75 000		
Notes in circulation	...	854,33,31,000		
Total notes issued	..		862,88 06 000	
Total Liabilities	Rs		862,88,06,000	

ASSETS

	Rs	a.	Rs	a
A Gold Coin & Bullion —				
(a) Held in India	...	44,41,43,000		
(b) Held outside India	...	...
Sterling Securities	...	744,83,96,000		
Total of A	..		789,25,39,000	
B, Rupee Coin	...		15,29,94,000	
Govt of India Rupee Securities	..		58,32,73 000	
Internal Bills of Exchange and other commercial paper			Nil	
Total Assets	Rs	...	862,88,06,000	

Ratio of the Total of A to Liabilities. 91.467 per cent.

Banking Department

LIABILITIES

		Rs.
Capital paid by Subscribers	..	5,00,00,000
Reserve Fund	..	5 00,00,000
Deposits —		
(a) Government	..	55,61,24,000
(b) Banks	...	74,70,34,000
(c) Others	..	4,82,35,000
Bills payable	..	3,65,96,000
Other liabilities	..	11,66,69,000
Total Rs	...	160 46,58,000

ASSETS

		Rs
Notes	...	8,54,75,000
Rupee Coin	...	23,97,000
Subsidiary Coins	..	1,43,000
Bills Discounted		
(a) Internal	...	Nil
(b) External	..	Nil
(c) Government of India Treasury Bills	..	3,43 71,000
Balances held abroad*	...	135,98 51,000
Loans and Advances to the Government	..	1,07,00,000
Other loans and advances	..	Nil
Investments	..	7,81,81,000
Other assets	..	3,35,40,000
Total Rs.	...	160,46,58,000

The Clearing House System —The development of banking on modern lines means the use of cheques in making and receiving payments. In English speaking countries, especially England and America, this system has developed to a large extent. Most of the transactions in these countries, are carried out by means of cheques. A bank, in the course of the day's business, receives a large number of cheques from its customers either for payment to others, or for being credited to their accounts. In this way different banks in a country get a large number of cheques drawn by customers upon one another, and so it becomes necessary that these claims and counter claims are satisfied with as little trouble or complication as possible. The principle underlying clearing house system is the payment of one set of claims

*Includes cash and short-term securities

by counter presentation of other claims. The least developed system of clearing in any town is where each bank presents to the other bank, a bundle of claims which it holds on others. The payment is not required at the time of presenting the claims; but the settlement is made subsequently by paying only the balance between the claims and counter claims.

The next stage is reached when a common place of meeting is fixed and the representatives of all banks reach this place. In this way the trouble of the representatives of different banks in going from one to the other, for the purpose of presenting claims is removed. The place having been fixed for all to meet at a particular time, the handing over of the claims to a number of banks becomes very easy—only a question of a few minutes.

Then comes the final stage which is the modern one. Further economy is secured in the settlement by book entry of the final balances resulting from the claims mutually admitted. When this arrangement has been completed it means the total elimination of the use of currency from beginning to the end.

London Clearing House—The London Clearing House was established in 1773, at first only for London private banks. In 1854 the joint stock banks also became its members. In that year the Bank of England was accepted as the bankers' bank, and it was decided that differences of claims arising as between one bank and the other may be settled by means of transfers at the Bank of England. The London clearing house has three sections, (1) the town clearing, dealing with the cheques drawn on banks in the city area (2) the Metropolitan clearing, dealing with cheques drawn on banks and branches out side the town clearing, but within the area having a radius of about four miles, and (3) the country clearing, which deals with areas outside the range of the other two collections.

All bills and cheques received by a bank from different sources are at first passed on by the bank to its own clearing department, where they are sorted out, and the list is prepared in which all those banks are entered from which money is to be received. This list is sent through a person to the clearing house where the manager or the assistant manager, or the clerk in charge, notes the amount payable by each bank to this particular bank. In this way, after all claims and counter claims have been received by the clerk in charge at the clearing house, and the claims and counter claims are taken into consideration the final balances are struck, and each bank knows definitely how much it has to pay to and receive from each of the other banks. The balances are not actually paid, but adjustments are made in their accounts by different members of the clearing house.

Indian Clearing House.—In India the most important clearing houses are those of Calcutta and Bombay. There are in all 9 clearing houses in India, where the work used to be carried on at the offices of the Imperial Bank before the Reserve Bank was started. The nine centres are Calcutta, Bombay, Madras, Delhi, Karachi, Lahore, Ahmedabad Simla and Cawnpore. The work of the clearing house was carried on under the supervision of the Imperial Bank. The members of the clearing house are the Imperial Bank, a number of exchange banks, and a few first class joint stock banks. No one is entitled to become a member of the clearing house unless the application is recommended by two members of this institution and ultimately accepted by a majority. Large sums of money are cleared through Indian clearing houses, the total amount of clearing being 1064 crores of Rupees through Calcutta clearing house, and 1185 crores of Rupees through Bombay clearing house. The total clearings for the whole of India amounted to about 2663 crores of Rupees in 1942.

Advantages of the clearing house —It is a logical sequence of the development of modern banking, and it completes the chain. If all men keep banking accounts, and all banks deal through the clearing house, there will be little need for the transfer of any money and all transactions will continue to be carried out on credit alone. It is an extension of the principle of credit, applied through the clearing house to a number of member banks. The work of the creation of credit, carried out by each bank, is largely facilitated by the clearing house arrangement. The progress of credit banking would have been arrested long before the present stage, if the clearing house mechanism were not started. It enables banks to adjust their balances easily and quickly, without any transfer of money. Some times the clearing house itself performs the function of a bankers' bank, and settles final differences between the member banks after making changes in book credits and book debits as the case may be. At other times the function of the clearing house is only to point out the details and positions of the final balances, while the actual work of adjustment and transference of money is done by another big institution which acts as the bankers' bank.

Money Market —Let us define a money market in terms of an ordinary market. The definition will be something like this —

'A money market is a region where buyers and sellers of money are in so close a contact with one another that its price tends to become the same throughout the whole region.' In this definition we should carefully understand certain phrases. By buyers and seller of money, we mean borrowers and lenders; and by the price of money we mean the rate of interest.

On account of the development of banking in modern times, and also on account of activities of the stock exchanges in

different parts of the world, it has become very easy for money or capital to be sent from one place to another, or to be transferred from one industry to another industry. The mobility of capital has very much increased in recent times. Under these conditions there would normally be a tendency for the rate of interest to remain uniform throughout wide regions if they are *inter-connected*.

The London money market is centred in Lombard street, where dealings in money for short periods are carried on. The suppliers of money, in this sense, are the big five banking institutions of London namely the Midland, the Llyods, the Barclays, the Westminster, and the National Provincial. These are among the largest banking institutions of the world. They have a command over almost unlimited resources and can grant facilities to their customers in any part of the world. They have their money invested at call, and short notice which means that they are prepared to lend a certain amount of money at a very low rate of interest, but which must also be payable either at call, that is to say, whenever demanded, or after a notice of usually a week. Then there are certain other funds which they can lend to people who have a demand for them, for different terms. But even the big five take their clue from the Bank of England in the matter of the rate of interest at which they are prepared to lend money to people. They are guided in their actions by the discount rate published on every Thursday by the Bank of England. So, it is this amount of money seeking investment for different periods, which constitutes the supply of capital at a particular time in London.

The London money market has a world wide reputation. Before the last Great War, it was considered to be the only free gold market in the world, with London as the greatest financial centre. But after 1918 London's position suffered not so much on account of any defect or weakness in it as because of the great relative increase in the importance of America as the free gold market of the world. During the present war London has lost its important financial position and New York now occupies the position which London used to occupy 3 decades previously.

The market rate of interest in England is governed by the Bank rate which is the official minimum discount rate at which the Bank of England discounts approved bills of exchange for members of the money market. This Bank rate gives the direction to, and serves as a basis of, other money market rates. Different rates are quoted with reference to different periods for which money is needed, and also with reference to people or institution demanding it. The bankers' deposit rate is that paid by banks on deposits left with them by their customers. Till very recently, it was customary to fix this rate at $1\frac{1}{4}$ per cent.

cent below the Bank of England rate of discount. But later on, a difference of 2 per cent became the rule. When the discount rate of the Bank of England itself fell as low as 2 per cent in 1932 others banks decided to pay a minimum of $\frac{1}{2}$ per cent on their deposits. There is also the brokers' deposit rate, which is paid by brokers and discounting houses on money left with them at short notice, and it is slightly higher than the bankers' deposit rate.

The commercial banks get a control over money only in virtue of their current deposits. If they have a surplus of money lying with them on current account which is not demanded by current depositors, there is no reason why they should not invest it in such a way that it may bring them a small rate of interest and remunerate them for the trouble and worry of keeping current accounts for customers. On the one side a banker is anxious to utilise his surplus funds in such a way that he may be able to earn some interest upon it and thus increase his profits. On the other side, however, he knows that most of his liabilities are demand liabilities. Consequently, it is his duty to keep the assets in as liquid a form as possible, so that, whenever demanded, the money may be paid back by the bank. These are the two considerations, which together influence the bank in its policy of lending money at varying rates of interest.

Cash, either with itself or with the Bank of England is the first line of defence, that is to say, if customers want their moneys back, their demand has to be met, at the outset, from cash in hand, or, which is practically the same thing, from cash at the Bank of England. But if the demand persists, and the cash is about to be exhausted, the second line of defence, which consists of money at call and short notice, is reached, and stems the tide of the customers demand. In this way there are several lines of defence, which a bank erects so that its financial position may remain safe and secure. Large sums of money are annually invested by English men in foreign countries through their banks. The banks themselves invest a certain percentage of their surplus resources in foreign or colonial government securities, or any other industrial securities which are safe and paying. The annual income of England in the form of interest from foreign investments was about £175 million pounds in 1938. It should be remembered that this income was 285 million pounds in 1927. On account of the great depression, it went down for sometimes but it again began to go up. During the current war, however the financial position of England has become very weak. Most of her Dominions and India have paid off their debts and England has now been reduced to the position of a debtor country even in relation to India.

Credit and Capital A very interesting question arises in connection with the relation between credit and capital. There are some who say that credit is capital; there are others, however, who are not prepared to concede this.

Capital is usually defined as that part of wealth which is used in the production of further wealth. So, all material aids to production are regarded as capital. Taken in this sense, credit cannot be regarded as capital. For anything to be capital, it is necessary that it should be first wealth; and nothing can be wealth which is not material and transferable. Credit is neither material, nor is it wealth, and so it cannot be capital in the ordinary sense. This question, however, cannot be disposed of so simply and easily. It requires a closer examination and a more critical analysis.

While discussing the quantity theory of money, we included under money not only metallic portion of it, but also all those credit instruments which performed its function or acted as its substitutes. Government currency notes, bills of exchange and bank credits were all included under money. Fisher, who has done most for popularising the quantity theory of money, includes paper money in his formula by which he seeks to measure its purchasing power. But paper money is nothing but a promise to pay a certain material substance a Pound or a Rupee or a Dollar, on demand. We also know that in most of the important countries of the world, paper money is now inconvertible. So its relation with that material substance has become much less intimate than before, and yet, because it performs the function and the work of money, it is taken as money, and no one makes any distinction between metallic money, and paper money. In India, for example, there is no reason why we should not regard Government currency notes as money. They are as good as Rupees. If we regard that amount of money which is used for the production of wealth as capital, there does not appear to be any reason why Government currency notes used by a manufacturer or an agriculturist, in paying wages to his labourers should not be regarded as capital, and why they should not be regarded as wealth by labourers who with their help and in exchange for them, get many useful articles.

That amount of paper currency, which is not in excess of the needs of community, and is freely convertible into metallic coin of the land, standard or token, is as good as metallic money, and is regarded as money by everyone. At this stage another point arises. When a promise to pay a certain sum of money on the part of a government, can be regarded as money or wealth or capital, there is no reason why a promise to pay money by a person who possesses high reputation should not be regarded as such. A person borrows money from another, and writes a

promissory note for Rs 100 that he borrows from the other. These Rs. 100 that he borrows, are given him, suppose, in the form of Government currency notes. They are regarded as capital by every one. In exchange for these, he too gives his own promise to pay money, also on demand. If his promise is as good as that of the Government, and if his promissory note can circulate from hand to hand, or in a restricted circle, and perform the function of money by facilitating certain exchange transactions, there is no reason why it should not be regarded as capital, by the lender of money, and by the society in which it circulates. If it cannot circulate at all, it will be regarded as capital only by the individual money lender, and so from the individual point of view it will certainly be capital but not from the point of view of the community. If it can circulate more or less in the same way, as the promissory notes of the Government, there does not appear to be any convincing reason why it should not be regarded as wealth or capital.

But let us leave, for the time being, the case of an individual borrower and of his promissory note. Let us take up for discussion that money which is called bank money and let us compare Government money with bank money. There was a time when banks were permitted to issue notes, in England, to any extent they pleased. This system lasted till 1844, when the right was withdrawn from other banks and granted solely to the Bank of England. Those banks which came into existence after 1844 found their activities curtailed to a great extent by the passing of this Act. They thought of another device, and that was the creation of credit, not by issuing notes, but by giving the people right to draw cheques upon themselves. This is how banks create credit. They are called bank credits or sometimes bank money, as distinguished from Government money.

We now have before us different kinds of money having different origins. There is the money which owes its origin to a mine on the one hand and a Government mint on the other. There is money which owes its origin to the usually regulated and controlled, but sometimes un-regulated and uncontrolled, will of the Government on the one hand, and a note issuing machinery on the other. There is money which owes its origin to the bank's view of the monetary situation in a country on the one hand, and their own capacity to fulfil their promises on the other. There is also money which owes its origin to a single individual who directs another to pay a certain sum of money to a third having first formed an idea about this individual's capacity to fulfil his promise. There is yet another money which owes its origin to a mere promise on the part of an individual to pay money to a certain person in consideration of something which he has already received. So we have metallic money, Government

currency notes or Bank notes backed up by the Government, Bank money in the sense of bank credits, bills of exchange, and ordinary promissory notes. All these instruments perform, under favourable circumstances, the functions that metallic money performs. There does not appear to be any conclusive reason why a great difference should be made between the first kind of money and that other ones!

Money is taken to mean that which is legal tender, and in this sense metallic coins, Government currency notes, or bank notes backed up by Government authority, are regarded as money, while the other instruments are only regarded as credit instruments and are not included under the term money. Every one, however, knows that metallic money has now almost gone out of use, if not even out of existence. Government currency notes or bank notes do not constitute more than 5 per cent of the *circulating media*. About 95 per cent transactions are financed now a-days by bank money viz., by cheques. The former are legal tender but the latter are not so. But one is not satisfied to find only legal tender money, being treated as wealth or capital, while non legal tender money, even though of as sterling a worth as any other, and sometimes much more useful, not being regarded as such.

While discussing the quantity theory of money it was pointed out that if one Rupee circulated 10 times a day, while Rs 10 circulated only once during the same period, there would not be any difference between the importance of this one rupee and those Rs 10. For this reason, the rapidity of circulation of money was given the same status as its quantity. If by a certain arrangement, banks can make Rs 500 do the work of Rs 5,000, is it wrong to say that the banks have created additional money to the extent of Rs. 4,500? The question becomes more pertinent when it is realised that without the banks the Rs. 500 would not do more work than any other Rs 500. In a previous illustration, it was mentioned that a certain person purchased an article from another man, and paid him by means of cheque. This second person sent his cheque to the same bank upon which it was drawn by the first person. So by a mere change in the register the transaction was completed. The work was done, but no money figured anywhere. May it be asked what was it that facilitated this transaction, and did not this 'Something' act as a substitute for money?

So we come to the conclusion that if we carefully analyse the notions of capital and credit, we find that the difference between the two is not fundamental. As a matter of fact closer analysis and a more critical study of all phenomena reveals an underlying unity and uniformity. It is not, therefore, quite absurd, as some economists suppose to regard credit also as wealth or capital, in a particular sense.

If we regard credit as a factor of production, there should be still less objection. When organisation, and even enterprise, have been treated as independent factors of production, there is no reason why credit should not be so treated. The economic development of modern countries depends almost entirely upon the strength and stability of their credit organisation. Organisation and enterprise are merely special types of mental labour. That is also the case with credit. A greater amount of skill is necessary in a banker than in an organiser. Both help the production of wealth. So both organisation and credit may be regarded as independent and important factors of production.

CHAPTER XVIII.

FOREIGN EXCHANGE

The Problem. The problem of foreign exchange is not fundamentally different from that of internal exchange. The only difference between the two is that in internal exchange the currency remains the same while in foreign exchange it becomes different. If a certain merchant purchases goods from another in the same country, the whole transaction can be completed by means of an inland bill of exchange which does not present any special difficulty. But if he wants to purchase goods from a foreign country, the problem at once assumes the complications in as much as there is a difference between the currencies of the two countries.

In order to understand the problem of foreign exchange, as it presents itself before us in modern times it is essential to understand, in the beginning how foreign trade was financed between different countries before the War. Although there has not been any essential difference in the theory of foreign trade, or foreign exchange, between pre-war and post-war periods, there have been some differences in details. The problem has developed some special features which require a more careful handling than was necessary before 1914. For this reason we divide the study of foreign exchanges into two parts, the first dealing with the problem before the Great War, and the second dealing with the post-war period.

Foreign Exchanges before the Great War. Before 1914, most of the European countries and America were gold using countries. Gold was the standard of value, and gold coins, supported by bank notes or cheques, circulated in different countries. On the Continent, bank notes were more popular; while in England and the United States of America the cheque performed the function of money to a very large extent. India had then, as now, a silver token currency for purposes of internal exchanges, but for purposes of foreign exchange the Indian Rupee was treated as equal to 15s. 4d.; so that, for all intents and purposes, the rupee was treated like a gold coin equal in value to 1/15th of a sovereign. China was then as now, a silver using country. Some South American States also used silver for currency purposes. Now and then, on account of some internal or international crisis, there was inflation, and so a great rise in paper prices. There were, consequently, disturbances in the foreign exchanges, but they were only temporary and resumed the normal course after the evil which caused them was removed. We will deal first with foreign exchange between two gold using countries in 1913, with a view to understand how foreign trade was financed at that time in the ordinary course.

The problem of foreign exchange arises because of the existence of international trade. If there were no international trade; and no other international dealing, there would be no necessity at all for foreign payments. It is only when payments have to be made to a foreign country, that this problem arises. Different countries have different monetary systems. They have coins of different metals, different denominations and different fineness. Obviously, the coin current in one country cannot be accepted by people in another country. If all nations could come to an agreement, and adopt the same metal as their standard of value and also adopt the same coin of a definite weight and fineness the problem could be solved at once. This has never been possible before, and is not likely to be practicable in the future. Accordingly, different countries of the world have their own currencies. The English pound is different in weight and fineness from the American dollar, which is different from the French franc, which is again different from the Italian lira, and so on.

Although the coins mentioned above were of gold, and so all these countries were gold using countries, exchanges between them were not simple on account of differences in their weight and fineness. It was therefore, necessary to find out a relation between the different coins. In mediæval times there used to be money changers whose business it was to exchange the currency of one country for another. If an Englishman wanted to go from England to France, and started on his journey with say £ 2500 then on reaching the boundary of France, he would change English money into French money according to the rate prevalent at the time, and settled with the money changer. This rate had a close relation to the quantity of pure gold contained in the coins of the two countries; although it was also influenced by a higher or lower demand for different coins. What money changers used to do in mediæval times began to be partly done by mints. By simple arithmetical calculations it was found out as to how many coins of a particular country were equal in value to that of another, keeping in view the quantity of pure metal contained in the two coins. In this way, mint pars of exchange were established. The following were the mint pars established in this way, in 1913.

£	=4866 dollars
1£	=25.22 Francs
1£	=20.41 Marks
1£	=25.26 Lire

So, keeping in view only the mint pars of exchange, and disregarding for the time being all other considerations affecting the rate of exchange, it could be said that £100 were equal to 2522 francs, 486 6 dollars, 2526 lire and 2041 marks. The mint

pars of exchange gave a rough and ready method of calculating the rate of exchange between any two gold using countries

Foreign exchanges also, form a part of the general theory of value, and can be explained satisfactorily on the same basis. The demand for foreign money arises only when some payment has to be made to a foreign country. For example, if England has to make a large payment to France the demand for French money would increase; making it slightly more valuable than English money. When international trade and other dealings arise between different countries of the world, there is a demand for foreign currencies in different countries. If some Englishmen have to make certain payments to the French, the latter also may have to make some payments to the former. So, on the one hand there is a demand in England for French money, while, on the other English money is in demand in France. Comparing the aggregate demand in the two countries for the respective currencies, it may be discovered which currency is in greater demand. As a result of this increased demand its value would rise in terms of the other currency

If England has to make a payment of £50 million in French money to the French creditors, while France has to make a payment of £45 million in English money to the English creditors, it means that, on the whole, the Franc is in greater demand than the pound. This would result in the rise of the value of the Franc as compared to that of the pound.

Specie points. If a Frenchman has to pay a debt of £100 to an Englishman, there are several courses open to him for liquidating this debt. He may either send a messenger with gold worth £100 to his English creditors. This is a highly expensive method, and so it is not resorted to by any one. The other way open to him is to purchase gold worth £100 and send it by post to his creditor in England. This is also not a cheap method of making payment to a foreign creditor. He will, first of all, have to spend 2522 Francs in purchasing gold worth £100. Then in sending it by post, he will have to pay insurance charges, and will have to affix stamps etc. Before the war it cost 10 Francs to send gold worth £100 from France to England. So he would have to spend in all 2532 Francs in making a payment of £100 to his creditor.

The third and the cheapest way open to him is to go to a bank and seek its assistance in the transfer of money from France to England. If he can get a draft from the French bank, he will be saved from the trouble of buying gold and packing, stamping and insuring it. If in addition to this freedom from worry and trouble he can get a draft for £100 by spending a little less than 10 Francs,

he should be very much satisfied. So when he approaches an exchange bank in France and wants a draft on England for £100 and the bank quotes the rate of exchange at which it would be prepared to sell a draft as 25 28 Francs the Frenchman is doubly satisfied. He is not only saved from the worry of buying gold and packing and insuring it but he also saves 4 Francs in the bargain. In sending gold his expenses would have been $2522 + 10 = 2532$ Francs, but in purchasing a draft through the French bank he will have to pay only 2528 Francs at the rate of 25 28 to a £. If however, the bank were not willing to sell him a draft at a rate less than 25 32, it would not make any difference to the Frenchman whether he sent the money by means of a draft or sent gold. If the bank wanted a higher rate than 25 32, that is to say, if it demanded say 2534 Francs before he gave a draft for £ 100 on England, the Frenchman would not purchase the draft and pay extra two Francs for £ 100, but would purchase gold and export it direct. Under these circumstances the French banks would not increase the rate so as to compel the the French debtors to begin to export gold from France to England. Consequently one limit of exchange between England and France is £1=25 32 Francs.

In the previous paragraph we had supposed that there were more exports from England to France than from France to England and that therefore the £ was in greater demand than the Franc, resulting in the value of the £ rising as compared to that of the Franc. If however there were more exports from France to England than from England to France, there would be a greater demand for the Franc than for the pound and consequently there would be a tendency for the value of the £ to fall in terms of the Franc. The mint par of exchange being 1£=25 22 Francs, the rate of exchange would be less than that. It might be, say, 25 16. This would mean that in exchange for £100, 2516 Francs could be obtained. The value of the pound had fallen on account of a fall in its demand, while that of the Franc had gone up because of an increase in the demand for Francs due to increased exports from France to England, and so increased anxiety on the part of English debtors to pay up their dues to the French creditors. With reference to the mint par of exchange £100 would enable an Englishman to pay up 2522 Francs to a French creditor; but because so many English debtors are anxious to make payments to French creditors, the the value of the Franc begins to rise. The rise in the value of the Franc is evident from the fact that the rate of exchange falls below 25 22 Francs to a £. If this tendency persists, it may continue to fall still further. As long as the rate does not fall below 25 12 Francs to a £ so long it would be profitable to the English debtor to buy a bank draft upon a French Bank through an English bank in England. But if the rate goes below 25.12.

and £100 deposited in England do not enable him to pay off a debt of even 2512 Francs he would not buy a draft but would export gold worth £100 to his French creditor. This course would enable him to pay off a debt of 2522 Francs after spending £100 and about 8 shillings or 10 Francs. The rate of exchange thus comes to be 25·12 for a £ for the Englishman, which he could not secure from his bank. If he could secure this rate, he would not take the trouble of sending gold from England to France. Banks do not generally like the prospect of gold leaving their country. So, under ordinary conditions the Englishman would not let the rate of exchange between England and France fall below 25·12. This is then the other limit of the rate of exchange between England and France.

These two limits are called the specie points. If the rate of exchange went above 25·32 to a pound gold would begin to flow from France to England, and the further rise in the rate of exchange would thus be checked. On the other hand if the rate of exchange went below 25·12, gold would begin to flow from England to France, and the further fall in the rate of exchange would thus be checked. In between these two limits the rate of exchange fluctuated from time to time and it was an unerring index of the relative positions of the two countries in the matter of mutual payments. As between England and France, so between any two countries of the world. Within certain limits fluctuations in the rates of exchange would be countenanced by people who would continue to purchase drafts from their own banks upon foreign banks; but if this rate tended to touch any of the two extremities the purchase and sale of bank drafts would cease altogether, and gold would begin to flow from one centre to the other.

A Foreign Bill of Exchange A foreign bill of exchange is not at all different from an inland bill of exchange, except that it is payable in a foreign currency. It is drawn by the exporter of goods in one country upon the importer of those goods in another country ordering the latter to pay the stated sum of money to the person named therein, after a stated period. The amount of money stated to be paid is usually the money current in the country of the exporter. The rate of exchange current on the day that the bill of exchange is drawn is also entered in the bill. If an English exporter exported goods worth say £1000 to a French merchant, he would draw a bill of exchange for that amount but would also mention the rate of exchange which would serve as a guide to the French importer. After drawing the bill of exchange, the drawer takes it to his bank and offers it for sale. It has not yet been accepted by the drawee and so is not yet a negotiable instrument. In spite of this the bank in England advances money to the exporter of goods, or the drawer

of the bill, after securing his endorsement on the bill or exchange in its favour. The bank for further security, also secures the bill of lading, which is a certificate of the receipt of goods by the captain of the ship, and also any insurance receipt of the company, with which the exported goods might have been insured.

All these precautions are taken by the bank because the bill of exchange is not yet accepted by the drawee, and has not yet become a negotiable instrument. If the bill is not accepted by the drawee on presentation, the bank will at once take delivery of goods in virtue of the bill of lading which it has got endorsed in its name. If by chance the ship carrying the goods in question is destroyed by fire, the bank will claim payment of money from the Insurance Company with which the goods have been insured.

So every precaution is taken by the bank to secure itself against any loss. As a matter of fact, it is very rarely that bills of exchange, drawn by exporters on foreign importers, are dishonoured. When the bill, together with other documents is handed over to the bank of the exporting country, it is sent by it to its branch in the importing country. This bill is presented as soon as it is received to the drawee for acceptance. After it has been accepted, it may either be held by the bank, or discounted with some other bank, and the cash so secured used for other purposes.

A Foreign bill of exchange and exchange banks A foreign bill of exchange performs a very useful service in financing international trade. It is a mechanism that has been developed in the course of centuries but it will have to be admitted that a foreign bill of exchange alone cannot serve any useful purpose, unless there are exchange banks, having branches in different parts of the world, or connections with foreign banks. In trade between England and France, for example, it would be impossible for an English drawer of a bill to get money several months in advance of the maturity of his bill, unless there are banks or other institutions prepared to advance him money in anticipation of the acceptance of the bill by the drawee and its final payment.

In every country there are both exporters and importers of goods. While exporters draw bills of exchange upon foreign importers of goods, importers are anxious to send money in payment of bills of exchange which they have accepted. This remittance of money is also carried on through exchange banks. These banks, therefore, on the one hand advance money to the exporters, and on the other receive money from importers. It is only in this way that they can carry on their functions without any break or hitch. If it were only the advancing of money

to exporters of goods, and receiving it only on the maturity of the bills, the resources of even the largest bank would be exhausted in a very short time. In every transaction, therefore, the banks earn a commission and thus make large profits. As with banks in one country, so also with their branches or connected banks in the other. When a bill of exchange drawn by an exporter in a country is negotiated by a bank, it is sent for acceptance immediately, together with the other documents, to its branch or associated bank in other country. This bank gets the bill accepted, without losing any time, and may now either hold it for the period for which it has to run, or discount it with another bank which carries on the business of discounting. Consequently, after getting it discounted with a bigger bank, or a discounting house it holds money ready for being utilised for some other purpose. In the mean time, if this branch or bank receives instruction from its headquarters or associated bank, to make payment on behalf of an importer to the exporter in the other country, the money held by it is paid to the person in accordance with the directions of the bank. 15

An Illustration. Suppose an English bank negotiates a bill of exchange of the value of £1000 drawn upon a French importer, pay able three months after sight, at the rate 25'28 Francs to the pound. After securing the several documents from the English exporter, the English bank advances him money after deducting the amount of interest for the period that the bill has to run before final presentation, and also something in the matter of its own commission. After doing all this, the bank sends this bill and other papers, to the branch in Paris, where the importer resides. The Paris branch of the English bank at once arranges to get the bill accepted by the French importer. After this according to previous arrangement it discounts the bill with a bigger bank in France. It has now to its credit 25280 Francs, minus the discount charged by the discounting bank upon the bill. It holds this money in readiness to be utilised in the way directed by the English bank.

In the mean time, an English importer has to pay, suppose, about 25000 Francs or about £1000, to a French man, from whom he had imported goods. He deposits money with the English bank after calculating the rate of exchange prevailing that day between England and France. The English bank undertakes the responsibility of making payment of this money to the French creditor, and so wires to its branch in Paris to make the payment of the sum to the French exporter who has been already intormed by the English importer beforehand. In this way the money that was lying with the Paris branch of the English bank is utilised.

The English bank, on one side of the channel, at first advanced about £1000 to an English exporter, and helped him in his export

trade. Very soon after, perhaps within a minute or so, it received about an equal sum, £ 1000 from an English importer and helped him in making payment to his creditor. All the while, the English bank had to deal only in English money, while its Paris branch only in French. No money had to go from one place to another, as it could not go on account of the difference in contents and fineness of the two monetary units, and also because the money of one country is not acceptable in the other. It is also not necessary to export gold between the two places. Under ordinary circumstances the whole work is carried on by the banks through bills of exchange.

The demand and supply of foreign bills. It is very necessary to explain and to understand the significance of the demand for and the supply of bills. If in a particular centre say England the supply of bills is large, it means that more goods have been exported from this country to the other centre or centres. In like manner, if the demand for bills on any centre is large, it means that more payments have to be made by the country to the centre upon which bills are in demand. Reverting to our previous illustration of trade between England and France, it may be said if the supply of bills in England upon France is large, it means that England has exported a large amount of goods to the latter country. But if there is a great demand for bills upon France it means that more people in England have imported goods from France, and are anxious to make payments by means of remittances, which can be possible only when the supply of bills on France is also enough.

* The supply of bills, consequently, is determined by exports while the demand for bills is determined by imports. If the amount of goods exported from one country to another is equal to the amount imported from that country, the demand for and the supply of bills would be equal. There will be no difficulty for banks, either in one country or in the other to finance the export and import trade between two such countries. Also the rate of exchange between the two will not differ largely from the mint par of exchange. This is, however, a rare occurrence. What actually happens is that at one time there is a greater demand for bills on a particular centre, while at another the reverse is the case. The general trend is determined by the total payments that have to be made by one country to the other. Other items are, more or less, of a uniform character but the export or import of goods is variable, and differs from year to year, and sometimes from one part of the year to another.

* **The Part that banks play.** If in a particular year, the amount of goods exported from England to France is much more than that imported from France to England, the result will be that the supply of bills in England will be large while the demand

for them will be small. The reverse will be the case in France. Consequently, the Franc will not be so much in demand in England as the pound in France. This would result in the value of the pound going up as compared to the francs. The mint par of exchange between the two being $1\text{£} = 25.22$ Francs, the rate of exchange will now be more than $1\text{£} = 25.22$ Francs, for the simple reason that the value of the pound has gone up as compared to the Franc. The limit upto which this increase can go has already been indicated in a previous section. It is 25.32 to the pound. If the supply of bills is very large and the demand for them very small, it will be very difficult for English banks to cope with heavy one sided transactions. With a large supply of bills on France English banks will have to advance large sums of money to English exporters, while owing to a smaller demand for bills on France they will receive smaller amounts of money for remittance to this country.

It will be difficult, therefore, for English banks to make their two ends meet, and they will have to invest a large amount of their own funds. As long as they can set off claims against counter claims they have no trouble; but when there is a great discrepancy between the export trade and the import trade, they find it difficult to continue their operations. They, therefore begin to charge a higher commission from exporters before they agree to advance them money while they begin to give easy terms to importers because they are in need of funds for facilitating further transactions. The rate of exchange itself, which now comes up to very near 25.32, is advantageous to English importers while *disadvantageous to English exporters*. If the rate of exchange is 25.22 Francs, an English man can pay up a debt of 2522 Francs by depositing $\text{£}100$ with an English bank. It, however, the rate exchange is 25.28 Francs we can pay a debt of 2528 Francs by depositing the same amount $\text{£}100$, or can pay up the same debt of 2522 Francs by paying something less than $\text{£}100$ in England. This is surely an encouragement to get goods from France, because, the payment of price is easy and cheap. Arguing in the same way it may be demonstrated that the higher rate of exchange is unfavourable to the exporters. The result, therefore, of a high rate of exchange between England and France would be that English exports will be discouraged after some time. Automatic forces, therefore come into operation which tend to restore the equilibrium between exports and imports from one country to the other.

Factors affecting the rate of exchange between any two countries. The rate of exchange between any two countries is determined by two broad factors, namely, (1) the demand and supply of bills and (2) currency conditions. The demand and supply of bills is controlled by three sets of influences namely (a)

trade influences (b) Stock exchange (c) Banking influences. Under trade influences we have to study (i) the export and import of goods and (ii) invisible exports and imports Under Stock exchange influence we have to discuss (i) investments and speculations in stocks and shares (ii) arbitrage operations Under banking influences the effects of (i) bankers' investments in bills (ii) foreign loans and (iii) circular notes and letters of credit.

The other broad factor that affects the rate of exchange is the condition of currency prevailing in different countries. Under this heading we have to discuss (a) the rate of exchange between gold using and silver using countries (b) the rate between a gold using country and that with inconvertible paper (c) the rate between two countries with inconvertible paper money. The following chart may be found convenient

RATE OF EXCHANGE

(A) Demand and supply of bills

(a) Trade influences

(b) Stock exchange influences

(c) Banking influences

(B) Currency conditions

(a) As between a gold using and a silver using country (Variations in the relative values of gold and silver).

(b) As between a gold or silver using country and one with inconvertible paper money. (Extent of depreciation in terms of gold or silver)

(c) As between two countries with inconvertible paper money (Purchasing power parity)

(i) Exports and imports of goods.

(ii) Invisible exports and imports.

(i) Investments and speculations in stocks and shares.

(ii) Arbitrage operations.

(i) Banker's investments in bills

(ii) Foreign loans.

(iii) Circular notes and letters of credit

A. DEMAND AND SUPPLY OF BILLS

We will first discuss the effect upon the rate of exchange of the demand and supply of bills. This depends in its turn upon three sets of influences. The first is trade influences.

(a) **Trade Influences**—A country exports to another country and also imports goods from it. If it exports more goods than it imports, the rate of exchange will be favourable. A favourable rate of exchange is that which makes it possible for a country to import gold from another country. This is a reminiscence of the mercantilists theory. They valued gold above every thing else, and they were right to a considerable extent in this preference. That state of foreign exchanges which makes it possible for a country to get gold in payment for its dues is rightly regarded as favourable by the people of that country, for the obvious reason that, after the import of gold, monetary conditions in a country become easier. Money can be advanced on easier terms by the banks to customers, that is to say, at a lower rate of interest, and for this reason trade activity increases, and more employment is given to people. The superstructure of credit is raised upon the basis of gold. Therefore, if the banks and the general public regard that state of exchanges favourable when gold is likely to be imported, they cannot be blamed.

When the rate of exchange between England and France reaches the limit of 25 32 Francs to a pound, the stage is reached when gold is at the point of being exported from France to England, for reasons mentioned in a previous discussion. Rather than pay a higher rate to the banks and suffer a loss, French importers would prefer to send gold to England which would not cost them more than the rate, 25 32 Francs to a pound, as mentioned above. By Englishmen this rate of exchange is regarded as favourable. This point in the rate of exchange is known as the gold import point by people in England. In France, however, this rate of exchange would be regarded as unfavourable as gold is likely to leave the country before long—and this point in the rate of exchange is known as the gold export point. It may also be mentioned in passing that although the import of gold into a country from abroad is welcomed by every one, yet that rate of exchange which ultimately makes it possible is regarded as favourable especially by importers. The favourable or unfavourable rate of exchange is, therefore, more often applicable to the importers than to the exporters.

A simple criterion to find out whether any rate of exchange, quoted as between any two countries, is favourable or unfavourable to the one or the other, is to first find out the par of exchange, mint or otherwise. Comparing this with the quoted rate of exchange, it should be discovered whether the value of the unit of currency of one country has appreciated or depreciated.

in terms of the currency of the other. If it has appreciated the rate is favourable; if it has depreciated it is unfavourable

(i) **Exports and imports of Goods** So, when there are more exports from a country than there have been imports into it, the rate of exchange will be favourable to it. Every factor that increases the claim of one country upon another, will go to make the rate of exchange favourable. If more goods have been exported the balance will have to be paid up either in the form of money, or in the form of extra goods

(ii) **Invisible exports and imports.** The export and import of goods is not the only factor that affects the trade conditions in a country. There are a type of exports and imports which do not figure in the board of trade returns. They are called for that reason invisible exports or imports. England, for example, has invested large sums of money in foreign countries. The amount of interest that it receives every year is very considerable. Even though it might have exported something less to a country but because of the payments that it may have to receive from it in the form of interest the rate of exchange will be favourably affected when allowance is made for such payments. English banks earn large commission for services that they perform almost for the whole world. English ships carry goods from one country to another country and earn a large amount of freights. America now occupies a position which is much stronger even than that of England in all these respects. The amount of invisible exports from such countries has to be taken into consideration before the balance of trade is struck off between them and others. As invisible exports make the rate of exchange favourable, so invisible imports tend to make it unfavourable. India exports more visible goods, but imports more invisible goods, with the result that it is not in reality in an advantageous position.

(b) **Stock Exchange Influences.**

(i) **Investments and speculations in stocks and shares** After trade influences the second important set of influences is the stock exchange influence. There are now a days stock exchanges in all important countries of the world. In these institutions first class government securities and other national and international stocks and shares are bought and sold. If an Englishman purchases a number of shares of a French company floated in Paris he will have to make a payment in accordance with the number of shares that he has purchased. Payment, therefore, has to be made on this account by the English bank to the French bank. It is the same thing as if England imported goods from France, and so had to make a payment for it. In this case it is not goods that are purchased but shares or securities in that country, for which payment has to be made. Some times there

are speculations also in such international stocks. With a slight rise in the price of a security quoted in a country, people sell it in order to take advantage of a rise in price. On the other hand if, there is a slight fall in the price quotation at a particular centre buying orders are received from foreign countries. In this way in exchange for a bundle of securities from one centre to another, money has to be paid by this or that country, producing a corresponding effect upon the rate of exchange. Sometimes a quotation like that given here is seen in commercial papers "The Persian oils opened weak but heavy buying orders from the Continent resulted in the price closing half up" In response to these heavy buying orders, securities of the Anglo-Persian Oil Company will be sent from England to these countries of the Continent where they were bought and in return money would be received, or, as is usual, accounted for between the banks of different countries. This would have its effect upon the rate of exchange.

(ii) **Arbitrage operations** Sometimes it happens that the price of the same stock or government security is quoted differently at different centres. There are always and every where certain operators who are ready to take advantage of this discrepancy in the price quotation. The moment it is known the arbitrage operators come into field. Telegraphically or by means of the telephone they buy at the centre where the price quotation has been low and sell at the centre where it has been quoted at a higher figure. The result of these operations is that the very small discrepancy that had appeared by chance, disappears within an hour or so, sometimes within a few minutes; but during this short period huge transactions are made which necessitate the sending of securities from one centre to the other followed by money.

• (c) Banking Influences.

(i) The third set of influences is the banking influences. Banks play an important part in the determination of the rate of exchange independently of their direct demand for bills of exchange upon different centres. It has been the practice of continental banks to hold a large number of sterling bills, that is to say bills of exchange payable in sterling. This was done by them in days before 1914 of which we are now really speaking. At that time, England was a free market for gold. A bill upon England payable in sterling was as good as gold itself. In order, therefore, to invest their money at a profit the continental banks used to invest their money in bills of exchange drawn upon England at various centres. On account of this demand of banks for sterling bills their price went up and the rate of exchange was correspondingly affected.

(ii) **Foreign loans**—Another way in which banks affected the demand and supply of bills, and ultimately the rate of exchange, was on account of their activity in negotiating loans between different countries. If England granted a loan, say to Belgium, money or goods would have to be transferred from England to Belgium. The banks played an important part in all such matters, and by acquiring bills of exchange drawn upon Belgium at different centres, they managed to transfer the whole amount of the loan to the country.

(iii) **Circular Notes and letters of credit**—It must have become clear to the reader by this time that the rate of exchange is not affected only by export and import of goods, but that there are many other influences that are at work before the rate of exchange is finally fixed. Another important activity of the banks is to supply circular notes and letters of credit to their customers when they go to foreign countries. An Englishman wants to go from England to Italy, and proposes to remain out on tour for about three months. During this period he requires a large amount of money for expenses. What he does under such circumstances before leaving for Italy is to arrange with an English bank for credit abroad, in this case Italy. The English bank which has either a branch of its own in Rome, or is in intimate relations with other banks in Italy, gives circular notes in which the amount for which the English customer wants credit is mentioned and which can be shown to different banks in different countries; or an ordinary letter of credit is given for a bank in Rome. This Englishman spends a certain amount of money in Rome but after some time the Italian bank claims all that money which it advanced to this English tourist and which will now have to be sent from England to Italy.

B CURRENCY CONDITIONS.

In the foregoing paragraphs we have discussed those factors that affect the rate of exchange between any two countries through the demand and supply of bills. There is, however, another broad set of influences which affect the rate of exchange not through the demand and supply of bills but through currency conditions. As long as the two countries engaged in international trade are both gold using countries, the rate of exchange between them is affected only by causes mentioned above; but if one country is a gold using country and in the other the currency is silver, a new factor is introduced. All the causes that influence the rate of exchange through the demand and supply of bills will remain in operation in the same way as before but there will be an additional cause namely that of valuation in the relative values of gold and silver. The rate of exchange between a gold using and a silver using country can be fixed at any one time by finding out the relative values of gold and silver, and

then by finding out the quantity of pure gold contained in the coin of the gold using country, and the quantity of pure silver contained in the coin of the silver using country. In this way a par of exchange is fixed, which cannot strictly speaking be called a mint par of exchange but which is applicable only either between two gold using or two silver using countries. This par of exchange so established, is liable to fluctuations from time to time, if the value of one metal changes in relation to that of the other. This was an important cause of the variation in the rate of exchange between England and India from 1871 to 1893 when the value of silver fell considerably in terms of gold, and again during the war from 1915 to 1919, when the value of silver rose considerably as compared to gold. It should be remembered that the variations in the rate of exchange between two gold using countries are very small, and restricted within definite limits set by the two specie points; but as between a gold and a silver using country these variations are very considerable, and no definite limits can be set to them.

(ii) Another case coming under currency conditions is that between two countries, one of which is on a metallic standard while the other is on a paper standard. When paper currency in a country becomes inconvertible, and there is consequently an over issue of paper, the rate of exchange fluctuates violently. The value of this inconvertible paper money will continue to depreciate with the increase in its quantity; and with the increase in its depreciation the rate of exchange will also begin to be affected. If France issues large quantities of paper money far in excess of the demand of the community, its value will begin to depreciate in terms of gold Francs. What happens on such occasions is that two prices appear in the country, one the gold price and the other the paper price. The difference between the two measures the depreciation of the paper in terms of gold. The rate of exchange between England and France will be very much affected on account of this change in the currency conditions of France. It will now not remain confined within the limits set by the two specie points. It will be remembered that that this limit becomes operative only because when it is reached gold begins to flow from one country to another country. But in a country with inconvertible paper money gold is prohibited from being exported to other countries and it is not available to private people. When therefore gold cannot be sent to other countries in payment of debt, the rate of exchange will at once pass beyond the limits of the specie points. One pound may therefore be exchange for 26 30 50 100 or even more Francs according as the depreciation of the paper Francs is more or less. The rate between England and France will be the rate between gold and paper Franc. The only limit is the quantity of the inconvertible paper and its depreciation in terms of gold.

(iii) There is a third case coming under currency conditions which is full of interest. If both the countries engaged in international trade are on an inconvertible paper standard, the rate of exchange between them will be determined according to the relative depreciation of the paper money in each of the two countries in terms of gold. If the depreciation in both is equal, the rate of exchange will not differ from the usual rate, but if the depreciation in one is greater than that in the other, to that extent the rate will be more unfavourable to one country than to the other. Let us suppose that both England and France begin to issue inconvertible paper money in excess of the demand, and the export of gold is prohibited in both. Even though gold exports may have been prohibited from one country to another, yet gold is certainly in existence, and so the depreciation of paper money in both the countries can be measured in terms of gold. If the depreciation of paper money in France is twice as much as it is in England, the rate of exchange between the two countries will be near about 1£ (paper) equal to 50·44 Francs (paper). This state of things will continue as long as currency conditions are not restored to the normal. When any one or both the countries come back to the gold standard, the rate will again begin to be determined according to old conditions.

Foreign Exchange During and after the Great War. So far we have discussed foreign exchanges as they existed in the world before the outbreak of war in 1914, when conditions were normal. After the outbreak of the war, conditions, every where, became abnormal. The free export of gold was gradually discouraged till it was actually prohibited. The quantity of paper money issued in different countries became very large, as it was needed for financing war operations and there was no easier method to get immediate command over resources than by issuing a large amount of paper money not convertible into gold. This paper money, therefore began to depreciate as its quantity exceeded the requirements of trade. During the 4 years of war conditions remained unsettled, except in America, which remained more or less a free market for gold. England had to come down from the high citadel and her paper money became inconvertible and the country no longer remained a free market for gold. In France large amounts of paper money were issued and depreciation of the currency became correspondingly very large. The rate of exchange between England and France became 1£ to 55 Francs, which meant that the depreciation of the paper money in France was more than twice as much as it was in England. In the same way, the currencies, of different countries were depreciated by excessive issues of paper. The rate of exchange between England and America measured the depreciation of the English money as compared to the American Dollar, which was still the standard money. Before the War, the rate

of exchange between England and America was 1£ equal to 4 866 Dollars. In 1919 it became 1£ equal to 32 Dollars, which meant that the depreciation in the value of English money as compared to the Dollar or gold was about 66 per cent. Nearer home, the rate of exchange between England and India during the War underwent great changes. They are discussed in details in the next chapter. There was no appreciable depreciation of paper money in India, but there was a new factor, namely, a great rise in the value of silver,

In short, during the war, gold ceased to circulate in European countries in the first place, although it still nominally remained the standard of value. In the second place, a large quantity of inconvertible paper was issued in order to finance war operations. These excessive issues of paper could not be withdrawn even after the war, with the result that the standard money of different countries had to be devalued in terms of gold. That is to say, while previously the rate between England and France was 1£ to 25.22 Francs, later on it had to be fixed at 55 Francs to the pound, and again at 124 Francs.

The effect of the depreciation of paper money or of inflation, is different on different classes. This has been discussed in connection with the quantity theory of money. Its effect on international trade is that a high rate of exchange, by which is meant more foreign money in exchange for local money, is that imports are encouraged into the country and exports are discouraged. If, however the rate of exchange is low, that is to say, less foreign money is given in exchange for local money, it encourages exports and discourages imports. When, therefore, the rate of exchange between England and France became 1£ to 124 Francs a great encouragement was given to French exports to England and other foreign countries whose rate of exchange had not depreciated so much. This is an additional temptation to increase the issue of paper money, as for the time being at least, it gives employment to many people on account of increased trade activity.

The depreciation of the Mark in Germany, after the signing of the peace treaty at Versailles has been unique in recent history. During the War, the value of the mark depreciated as did the value of the Franc or the pound or the Lira, though even then the depreciation in the Mark was a little more pronounced. But after her defeat, and the prospect of paying indemnity and reparations, the value of Mark began to fall alarmingly. It continued to fall steadily and rapidly till on January 10, 1923 the quotation was 48000 to the £ while, be it remembered its pre-war rate was 1£ equal to 20.413 Marks. In February it was 250,000 to the £, in June 480,000, in July 480,000.

and by September the rate had become 480 millions to a £. This unheard of depreciation could be possible only by an entirely uncontrolled issue of paper money. These paper Marks were really not worth even the paper on which they were printed. It should not be understood, however, that 480 million pieces of paper Marks were given in exchange for a £. What happened was that on a piece of paper instead of 10 Marks 100 million Marks was printed, and the paper at once became of that value.

While the condition of a large number of people in Germany became pitiable, especially of those who had fixed incomes from land or property, stocks or shares or salaries, that of those whose incomes were variable and who were engaged in agriculture or in industries was not so bad. General prices went up tremendously, though wages, as usual, did rise to the same level. The effect of this great depreciation in the value of the Mark was that German goods in other countries became very cheap. An article which cost 480 million Marks in Germany, could be had for one £ in England, while previously a commodity worth only about 20 Marks could be had in exchange for it. Making allowance for the great rise in prices in Germany, even then this depreciation of the paper money encouraged German exports to foreign countries to a very large extent. There are some who are of opinion that this depreciation was a deliberate and a clever move of the German politicians who even in their defeat continued to receive cash and money from abroad. The point may be explained further.

When the depreciation of the Mark commenced, people thought that it was only a temporary phase, and that after some time its value would be stabilised according to the old standard. The German politicians tried to foster this belief. When the rate of exchange between England and Germany became, say, 100 Marks to a pound, Englishmen thought of sending money to Germany, as they could get a credit of 100 Marks in Germany by depositing one pound in England. They thought that when the value of the Mark was restored to its former level, and became about 20 Marks to a pound, they would get back the 100 Marks in terms of pounds in England and so would get £5 in place of ~~one pound which they had deposited in the beginning~~. Under this temptation people in England, other European countries, America, Asiatic countries and even India, began to send money to Germany. They deposited gold or silver with the banks in their countries which got them credit with the German banks. Sometimes banks in other countries had to send gold to Germany in exchange for credits so secured and created. After some time the value of the Mark became 500 to a pound. Then people thought that the lowest limit had been reached, and that it was time to get credit in Germany. So a steady movement of money towards Germany commenced. In this way with every

fall in the value of the Mark, people in various parts of the world thought that all those who had transferred money at 100, 500, 1000 or 10000 marks were not as wise as they themselves who were transferring money at the rate of 100000 Marks to a pound. But the value of the Mark never found its lowest limit. It went on falling as mentioned above till it became 480 million Marks to a pound. During this period vast amounts of money had been attracted by German banks; and the Mark was still falling!

While on the one hand, Germany was thus attracting money from abroad and from those countries which had defeated her and were demanding and receiving indemnity and reparations, she was also receiving money from them by selling cheap articles against which articles manufactured in those countries could never compete, unless they depreciated their currency to the same extent as had Germany. In the end under the threat of a Bolshevik revolution Germany escaped scot free from the liability of returning the large amounts of credit secured during this unique period in her currency history.

The story of the three brothers which has been quoted by Vernon Bartlett in "New Germany Explained," is repeated here to illustrate the condition of Germany during the period of this inflation or depreciation after the War "One of the three brothers was very careful and put all his fortune into Government stock; the second spent most of his money in order to fill his wine cellar; the third went to a lunatic asylum before the war. During the inflation, the first nearly starved, because with all his careful hoarding, he could not buy a square meal (the value of government securities had fallen to such an extent that no body would purchase them at any price) The second brother sold the bottles in his wine cellar for enough money to keep him in relative luxury (This shows that the value of even ordinary commodities was sufficiently high in terms of paper Marks) The third brother was released from his asylum, and among his belongings that were handed back to him, was a gold 20 Mark piece. Knowing nothing of the war and inflation, he handed this coin to the cab driver who brought him home. The cabby, (cab driver) bewildered, drove him to a bank (he had not enough paper Marks with him to give change for the gold 20 Mark piece). There he was offered so many million paper marks in exchange for his coin that he decided he could not yet be cured, and so went back sorrowfully to his asylum."

The theory of Purchasing Power parity. Before the war, when most of the European countries and America were on a gold standard, the problem of foreign exchanges, though complex on account of its very nature, was not so much complicated as it became during the war and especially after its close. The reason

for this new complication was the over issue of paper money in every important country and the declaration of its inconvertibility. When gold formed the basis of internal and external exchanges, the specie points between different countries acted fairly well as the ultimate limits within which the rate of exchange could fluctuate. If, on account of abnormal payments on one side or the other, a particular limit was reached, and the banks in the trading countries found it difficult to continue to finance the foreign trade out of their own resources they let the rate of exchange exceed the limits and thus set gold moving from one country to another. But with the practical disappearance of gold from these international dealings the specie points became inoperative, and people were deprived of a very convenient method of understanding the working of the foreign exchanges.

With gold out of circulation, and paper money inconvertible, the rate of exchange between different countries began to be determined on the basis of the purchasing power of money of different countries. The purchasing power of gold was about equal throughout the world, especially with regard to those commodities which were bought and sold in greater part of the world. Now, however, the purchasing power of different currencies (paper money) was determined with reference to their quantity in circulation, and the demand for them. This was, of course, different in different countries. A relation between the currencies of two countries when both are on a gold standard is difficult to establish. The mint par could be easily calculated and could then help in discovering the values of other currencies in terms of any one. A relation could also be established between a gold using and a silver using country, after finding out the relative values of gold and silver. Even as between a gold or silver using country and another with inconvertible paper money, a relation could be established, though not without difficulty, by calculating the depreciation of paper money as compared to metallic money in a different country. But the problem became still more complex when most of the countries gave up gold standard and adopted a paper standard. Here purchasing power parity came in to take the place of the old mint par of exchange.

While discussing Index numbers it was explained that their important function was to measure the value of money. Measuring the value of money is determining its purchasing power. If a number of commodities, which are more or less in demand throughout the civilised world, are selected, and with reference to them the purchasing powers of the currencies of different countries are determined, ratios can also be fixed between the currencies of any two countries. Suppose that after selecting such representative commodities it is discovered that the purchasing power of English money is 4 times that of American money,

155 times that of French money and 13 times that of Indian money we will not be wrong if we say that $1\text{£}=4$ Dollars; $1\text{£}=155$ Francs and $1\text{£}=\text{Rs. } 13$.

This procedure will, no doubt be very rough and not free from difficulties and even defects; but in the absence of any other method it is certainly the best. The commodities selected may not be all so representative as to serve the important purpose of measuring the values or purchasing powers of the currencies of such widely divergent countries like America and England, Germany and Italy, China, Japan and India. Again, it will be necessary to measure the purchasing powers of different currencies every now and then and with every difference in the purchasing power of any, make the necessary change in the relative values of different currencies

If, for example, more paper money has been issued in France than elsewhere, naturally the purchasing power of the Franc will diminish, and consequently more Francs will have to be given in exchange for the Pound, the Dollar, the Rupee and so on. However, with all the difficulties and defects, the theory of purchasing power parity can better explain the post war movements of foreign exchanges than any other theory propounded so far

CHAPTER XIX

INDIAN CURRENCY AND EXCHANGE.

It is not necessary here to narrate the ancient history of Indian currency. We may only mention in this connection that during the days of the Hindu Empire, both gold and silver coins circulated side by side, though it cannot be said definitely whether the system was purely bi-metallic, in the sense in which we understand it to-day or, it was a different system. In any case, it is an established fact that during the Hindu period Indians were quite familiar with the use of gold coins. When the Muslims came to India, they continued the same system of currency that they found prevalent in the country. Even then, gold and silver coins were coined after the Persian model; but after the break up of the Mughal Empire the system of currency did not remain uniform. Numerous petty Rajas and Nawabs acquired mastery over different areas of the realm. The first thing which they wanted to do was to set their own coin into circulation in order to demonstrate the fact of their sovereignty. When the British East India Company acquired political control over India, it found currency in a very confused state. There were hundreds of variety of coins current in different parts of the country.

Emergence of the Indian Rupee. Out of this confused mass, the Government of India selected the Madras coin as the best for adoption throughout the whole country. The present Rupee is based on the model of the Madras coin as it was in the year 1835. So the Government of India adopted silver as the standard of value and opened the mints to the public. The Rupee remained 11/12th^s fine upto 1940 when its silver contents were reduced, and weighed one tola. It contained 11 *mashas* of silver and one *masha* of alloy. The silver contents have now been practically halved. After 1835, however, silver bullion could be sent to the mint in certain minimum quantities, and could be freely coined into Rupees. Rupees also could be freely melted into silver whenever desired. This state of things continued for a considerable time; but from 1871 onwards, conditions in the world changed to a great extent. The rate of exchange between India and England was prior to 1871, two shillings to the Rupee; that is to say, in exchange for a gold sovereign ten Rupees were given. But after that, the value of silver began to fall as compared to gold, on account of world conditions. A few causes of the fall in the value of silver at this period as compared to gold, may be given.

Causes of the fall in the price of Silver. (1) In 1870-71 Germany won a great victory over France, and demanded and realised a heavy indemnity from her. Encouraged by the great

victory and depending upon the indemnity, Germany decided to demonetise her silver currency, and adopt gold mono-metallic standard after the English model. This action on the part of Germany threw upon the market a large amount of silver, and created a great demand for gold. Following the example of Germany, other countries like Austria, Italy, Sweden etc, also began to give up silver as their money material, and began to adopt gold as the standard of value and a medium of exchange. This naturally disturbed the relative position of silver and gold in the market.

(2) This was also the period when gold mines in Australia and California, discovered in 1848 began to show signs of exhaustion. For this reason the value of gold began to appreciate in terms of silver, and consequently silver began to depreciate in terms of gold.

(3) Some very rich silver mines were discovered in Nevada (America). The result was that enormous quantity of silver began to be mined and thrown on the market. The price of silver was therefore still further depressed.

(4) As if every thing was conspiring against silver, a chemical process was discovered, called Desilverisation of Lead. By this process, silver which was always known to be present in lead, could be easily separated from it, which was not possible before the discovery of this process. On account of this, enormous quantities of silver were produced and sent to markets for sale.

The cumulative effect of all these factors was that the value of silver began to fall in terms of gold to a very great extent. How the fall in the value of silver affected the rate of exchange between India and England, deserves attention. When the value of silver began to fall, the rate of exchange also began to fall. From two shillings to the rupee, it fell gradually to about one shilling to the Rupee during the course of 20 years. While previously Rs. 10 were equal in value to a gold sovereign, now, not ten, but twenty Rupees had to be given in exchange. This meant that the depreciation in the value of silver, as compared to gold, had become fully 50 per cent. Its value had become exactly one half of what it was in 1870. With the rate of exchange at one shilling to the Rupee, great disturbances were caused in the trade and industry of India, and other Anglo Indian relations.

Effects of the fall in the price of silver. An illustration will make the point clear. When the rate between India and England was two shillings to the Rupee, or Rupees 10 to the pound, an article worth a pound in England, could be had for Rupees 10 in India. When the rate of exchange became one shilling to the rupee, the same commodity could not be had for less than Rupees 20. Thus the price of English manufactured

articles became double during the course of 20 years. On the other hand, the prices of Indian made articles, became half of what they were before in England. This meant a great discouragement to English imports into India and gave a great encouragement to Indian exports to foreign countries. This could not be liked by people in England, and perhaps, also by the Government of India.

There was, however, another great difficulty. Large sums of money had been borrowed by the Indian Government from England for the construction of Railways in the country. Interest had to be paid every year to English creditors. They had stipulated in the very beginning that they would like to get their interest in gold in England, irrespective of the changes in the rate of exchange. So this amount had to be provided for them in England every year. Suppose the Government of India had to pay 20 million pounds per annum, as interest and other charges to England. If the rate of exchange were 2 shillings to the rupee, the Government would have to collect only 2 hundred million Rupees, in order to enable the Secretary of State for India to pay 20 million pounds to the English creditors on behalf of the Government of India. But when the rate of exchange became 1 shilling to the Rupee, or Rs. 20 for a pound, not 2 hundred million rupees, but 4 hundred million rupees had to be collected by the Government for the said purpose. It was not possible to increase taxation every year. Moreover, this was also the period when the country was suffering from losses in the working of railways. For all these reasons the Government of India found itself in very great difficulty. There was a great deal of uncertainty in the minds of the people regarding the rate of exchange. A sort of speculative spirit had begun to take possession of them. They were not sure of the future, and did not know whether the rate of exchange would rise or fall. Those who did not like to take risks had to keep themselves aloof from business activity.

Closing of the Mints. Consequently, the Government of India appointed a committee under Sir John Herschell in 1893. This committee recommended that mints should be closed to the free coinage of silver, so that the supply of Rupees may become less than before, and may ultimately be brought under the control of the Government of India. For 5 years, therefore, there was no minting of fresh rupees. Their supply was thus restricted, while the demand went on increasing continuously, as that was the only currency available to people and population was constantly on the increase. On account of this artificial scarcity created by the action of the Government in closing the mints, the value of the Rupees (as distinguished from silver in it) began to rise in terms of other commodities, including gold. The value of every commodity becomes higher if its supply is restricted.

We have learnt under monopolies, that a monopolist can raise the price of his commodity by artificially restricting its supply. That was exactly what took place in the matter of Rupees. Formerly the supply of Rupees was controlled by people in general, and there was no control of the Government over it. After 1893, however, the Government of India took under its control the entire supply of these Rupees, and by carefully monopolising and restricting their supply succeeded in raising the value of the Rupee as compared to other articles not excluding gold. The result was that by 1898, the rate of exchange as between India and England became one shilling four pence to the rupee.

Gold Exchange Standard In 1898 another committee was appointed under the presidency of Sir Henry Fowler. This committee gave a definite lead to the currency policy of the Government of India. The rate of exchange was fixed at one shilling four pence to the Rupee, which meant that one pound or sovereign was now equal to Rupees 15. The mints were to remain closed to the free coinage of silver. The Government of India had to undertake the responsibility of giving facilities to Indian importers for making their payments in gold, if they demanded these facilities. In the same way the Secretary of State for India was also required to give facilities to English importers to make payments in Rupees, whenever they needed it, to the Indian creditors. It was thus a managed currency. The Government of India here, and the Secretary of State for India in England, began to act like two big banking institutions. They had almost unlimited resources, and foreign exchange business between these two countries, began to be controlled by these two great authorities. This system was known as the gold exchange standard. For internal purposes the Rupee was still treated as a standard coin, though it had been degraded, as a matter of fact, to the position of a token coin. It was unlimited legal tender and facilitated internal exchanges. For external purposes, it was treated as a gold coin equal in value to 1s 4d.

Council Bills India usually exports more goods to the world than she imports. She has, therefore, always a favourable balance of trade. Let us first understand as clearly as possible, how trade between India and England was financed in those times of which we are now speaking. If in any one year, India exported goods worth £100 million to England; while she imported goods, say, worth £75 million, India would have a favourable balance of trade of £25 million. India, however, had to pay every year to England, about £20 million in payment of interest and other dues, known as Home charges, or English charges. Under such circumstances, two alternatives were possible; one was for English debtors to send the balance of £25 million either in gold or in

silver to India, and then for the Government of India to send £20 million to England. This would have meant unnecessary trouble and loss to all concerned. So the method adopted was that the Secretary of State for India realised from those English debtors who had to make payments to Indian creditors, the total amount of £25 million, and gave them bills upon the Government of India, directing the latter to pay to the holders of the bills, the amount of money mentioned therein. The Secretary of State for India had every right to do this, as he was in the position of a creditor, while the Government of India was in the position of a debtor. Out of these £25 million realised by the Secretary of State for India from the English debtors he kept £20 million as the amount of Home charges, and transferred £5 million to the credit of the Government of India, to be dealt with in the succeeding year. The English debtors got the bills, called Council Bills, from the Secretary of State in return for English money, which he needed for paying as interest to those Englishmen who had advanced money for Railway construction. They sent these Bills to their creditors in India, who sent them to their banks, which, in turn, realised the money from the Government of India Treasury. All the mutual obligations were thus conveniently met. The Indian creditors got their dues in Rupees, the currency which they really needed. The English debtors paid off their debt in their own money, to their own banks. The Secretary of State made payments on behalf of the Indian Government out of this money, while the Government discharged its yearly debt so conveniently. The balance of £5 million, which remained in England to the credit of the Government of India, could be called up any moment, or utilised in any other way. But even this was not necessary. Every year large quantities of railway material had to be purchased from England, and so the amount could be very well utilised for this purpose.

Reverse Councils This was all right as long as India had a favourable balance of trade, and had to be paid the balance by the English debtors. But if the balance of trade became unfavourable to India, then the remedy was for Indian debtors to approach the Government of India for bills upon the Secretary of State called Reverse Councils. If suppose, the balance of trade was unfavourable to the extent of £10 million, which had to be finally paid by Indians to Englishmen. They deposited an equivalent number of Rupees with their banks, which forwarded the amount to the Government treasury, and got in return from the Government of India Sterling bills or Reverse Councils upon the Secretary of State to the extent of £10 million. These bills were met by the Secretary of State and the English creditors were thus paid.

It may be asked what right had the Government of India to draw bills upon the Secretary of State. The answer is that out

of the profits on the coinage of Rupees in India, a reserve fund had been created, which was named the Gold Standard Reserve. Its object was to help the establishment of a gold standard in India. For this purpose it was temporarily located in England. From 1898 onwards, these profits had increased to a large extent, and the amount of the reserve had become large enough to entitle the Government of India to draw, in cases of emergency, bills on the strength of this reserve, upon the Secretary of State. Later on, however, this amount would have to be made good by the Government of India. The gold standard reserve could only be drawn upon in emergency.

This was how the gold exchange standard worked upto 1914. When last Great War broke out the system also broke down and new problems began to arise, which will be discussed later on.

Criticism of the Gold Exchange Standard. In the foregoing pages a brief description has been given of the working of the gold exchange standard, as it worked in India up to 1914, the year of the outbreak of the Great War. Apparently, there was nothing on the surface to excite any comment or adverse criticism. Everything appeared to be going on quite well and smoothly. But a little attempt to understand the inner working of the system would convince any one that the whole thing was not really as innocent as it looked. Before proceeding further, it may be pointed out that from the very beginning of the relations between England and India, the attempt of English statesmen has always been to devise measures where by the export of gold from England to India may be discouraged, if not altogether stopped. India was regarded by every one as a sink for the precious metals. Gold and silver flowed into India but did not leave her shores again. She only *imported* gold and silver, but never *exported* these precious metals. This was something which was not very much liked by English business men and statesmen. Consequently, their constant attempt has always been to raise the level of prices in India so that this country may become a good market for the sale of English manufactured articles. However, we need not go into the earlier history of the attempts of the British Government to check the flow of gold into India. We will confine ourselves only to a discussion of the measures adopted by the Secretary of State in connection with the management of the gold exchange standard from 1898 to 1913.

It may be mentioned that Sir Henry Fowler, while recommending the final closing of the Indian mints to the coinage of silver, sincerely wished that after some time, India might adopt a mono-metallic gold standard, so that all difficulties

of exchange between England and India may disappear altogether. It was for this purpose that he recommended the creation of a gold standard reserve, which was to be located in England. Also, he recommended that in exchange for Rs. 15 a gold sovereign may be given by the Government of India, just as Rs 15 were to be given in exchange for a sovereign. So, for sometime gold in the form of British sovereigns, and silver in the form of Rupees, circulated side by side at the fixed ratio of one sovereign to Rs. 15. For all intents and purposes, the system in India was a bimetallic one, except that mints were not open to free coinage either of gold or silver. But both were unlimited tender, and there was a fixed ratio at which both circulated in the country.

In the trade relations between India and England, it began to be observed very early after 1898, that the Secretary of State came in just when gold was about to flow from England to India. If India had a favourable balance of trade gold should have been allowed to come to India; but on the plea that an equal amount had to be sent by the Government of India to England in payment of English charges, large amounts of gold that would have flowed into India, were withheld in England for the payment of English charges. Even so far, one could not very much object; but there was absolutely no justification for the Secretary of State to have checked the flow of that gold also which was over and above the amount of English charges. This amount, the Secretary of State kept back on the plea that the Government of India every now and then had to make purchases of stocks, railway or any other, in England and so for that reason it would not serve any useful purpose if this amount of gold went to India, where it would not circulate but would go into hoards or be converted into ornaments. The Government of India, it was said, would be put to unnecessary trouble when the time came for them to send money in payment of railway material or stores which they had to purchase from England. This was only a plausible argument. As a matter of fact, gold was becoming increasingly popular in India, and even if it went into hoards or was converted into ornaments, it was no business of the Secretary of State to have acted as a superior mentor and offered advice which was entirely uncalled for.

Another point of criticism was the location of the gold standard reserve. The profits on coinage were earned in India and belonged to this country. But they were sent to England to be either deposited in the Bank of England, or invested in other English securities. The money, as a matter of fact, ought to have remained in India where it could be utilised for the purpose of developing industries. It was pointed out in answer to this criticism that if there were no such reserve in England

to the credit of the Government of India, the latter could not sell Reverse Councils upon the Secretary of State, at a time when the balance of trade turned against India and there arose a demand on the part of Indian public to send gold in satisfaction of the claims of English creditors. But had the Government of India no right to ask the Secretary of State for India to pay on their behalf a few million pounds, perhaps once after 7 or 8 years? Even if the Secretary of State could not be generous enough to pay this money, he could surely stand as a security for the Indian Government with any big bank in England and could thus get this money advanced.

But nothing of this nature was done. Gold was not allowed to flow freely to India and the gold standard reserve continued to swell in England till it rose to £40 million. It was once in 1907, that is to say, 9 years after the gold exchange standard had been established in India, that the rate of exchange between England and India became weak, and was quoted at less than 1 shilling 4 pence to the rupee. This was due, in the first place, to a crisis in America; and in the second place, to famine conditions prevailing in the country at that time. Our imports were about normal, but exports fell off to a considerable extent, with the result as mentioned above. Naturally, after some time, there arose a demand in India for Reverse Councils. Indians wanted to make payment to their English creditors, but ordinary bills of exchange not being available, they approached the Government of India for Bills upon the Secretary of State, as had been provided for by Sir Henry Fowler's committee, and promised so often by high authorities in India and England. But even after repeated requests the Government of India would not come out with any definite answer. The Indian importers, in the mean time had to suffer great losses in having to make payments to their English creditors at highly unfavourable rates. It was only after a pretty long time that the Indian Government made arrangements to sell Reverse Councils. Not much could be known at that time about the reason for this delay on the part of the Government of India; but after sometime it transpired that the gold in the Gold Standard Reserve which was then about 20 million pounds had been invested by the Secretary of State in certain British undertakings from which it was not easy to withdraw it for meeting the bills. So this was the real reason why the gold standard reserve was located in England in spite of protests from India. It was created by Sir Henry Fowler for the purpose of introduction of gold standard in India, but it was being used to develop English trade and industries!

Chamberlain Commission. In 1913, however, when criticisms of different kinds were made against the currency policy of

the Government of India, a new commission was appointed under the chairmanship of Sir Austen Chamberlain. This commission went into the whole question of the closing of the Indian mints, the fixing of the rate of exchange, the location of the various reserves, the introduction of the gold standard in India in place of the gold exchange standard, and the policy of the Secretary of State regarding the free flow of gold from England to this country. After going through all these questions it gave a verdict which, in the words of Sir Stanley Reed was, "Not found guilty, but do not do it again." Nothing substantial or important came out of this commission. Very soon after the commission had submitted its report, war was declared; and new problems came before people both in England and in India.

War Currency. England declared war on August 4, 1914; but long before this, far sighted statesmen, both in England and India, were ready for some such catastrophe, and so had taken due precautions to meet any emergency. The Indian Government, as well as the Secretary of State, were both ready, one to sell Reverse Councils, and the other to meet them, in case the rate of exchange between India and England became suddenly weak, as was regarded most probable on the declaration of a war. When the war actually broke out the rate of exchange did become weak, because the English creditors and English banks demanded payment of their dues from their debtors—individual customers or banks. The result was that the movement of exchanges not only between England and India, but also between England and other countries of the world moved violently in favour of England because of her position as a creditor country in the world.

The crisis was faced very well in India. There were, no doubt, large withdrawals from the post office savings banks, but, they were met promptly so, after some time, the run was stopped. The exchange having become weak, there was a demand for Reverse Councils which was readily met, and Reverse Councils of more than 100 crores of Rupees were sold within a few weeks of the declaration of the war.

But now events began to happen which even the most far sighted statesmen had never imagined. The rate of exchange between India and England, after remaining weak for some time, began to recover, and became quite strong after six months of the declaration of the war. There were several causes for this strength in the rate of exchange.

Causes of the rise in the price of silver. England and her Allies wanted raw materials from India, while they could not send in return the usual articles that they normally exported. The result was that the balance of trade became very favourable

to India, English industry had been converted from a peace footing to a war footing. Only those articles which were needed for war had begun to be chiefly manufactured, while those that were needed in normal times, could not be easily produced. England had not much to give to India in exchange for her raw materials. The same was the case with her Allies. They, too, wanted large quantities of raw materials, but could not give much in return.

The Indian army, that had been sent to the front to fight the battles of England, had to be paid and supported by her. India, however, was meeting at that time these expenses on behalf of England, though England had ultimately to pay them up. The balance had, consequently, become still more favourable to India. Also on account of an increase in the quantity of money, especially paper money; general prices had gone up; also because of the urgency of the demand of England and other Allies for Indian raw produce their prices had gone up considerably. There was, therefore, not only a great increase in the quantity of raw materials that were being exported, but a greater increase in their value. In order to liquidate this highly favourable balance of trade very large quantities of Council Bills had to be sold by the Secretary of State to meet which, a large number of Rupees were needed in India. Consequently, large amounts of silver had to be purchased in England by the Secretary of State on behalf of the Government of India for the coinage of silver rupees.

(1) This increase in the demand for silver caused by the highly favourable balance of trade of India began to affect its price which began to rise. With the rise in the price of silver, profits of the Government of India on the coinage of Rupees began to decline. The increased demand for silver in India was not, however, the only cause of the rise in its price. Several other causes had also combined to bring it about.

(2) In the constitution of the Central banks of different countries, there was a clause that a certain percentage of reserves could be kept in silver also. But as long as gold was freely available, no Central bank cared to show silver in its reserves. Now, however, every Central bank was anxious to show its own position as the strongest of all, and so each one was anxious to secure not as much gold as possible, but also as much silver as could be available, to swell its metallic reserve and other balances. For this reason, there was an additional demand for silver from an unexpected quarter.

(3) Just at this time two important and populous provinces of China gave up barter and adopted exchange. Silver being the money material used in China, a very great demand for this

metal arose there. Two provinces of China, really mean two big countries of Europe. It meant, therefore, a very great increase in the demand for silver.

(4) Just as between 1873 and 1893, circumstances had conspired together to depress the value of silver, in the same way, now they seemed to have conspired to raise its value to the highest pitch. At this very period civil war started in Mexico, which is a very important silver producing country. The result was that those silver mines that worked in that country, ceased to work entirely, and the labourers working in the mines offered their services in the civil war, either on one side or the other.

So, the cumulative effect of all these factors was that the value of silver rose to enormous heights, so much so that it remained no longer possible for the Government of India to coin silver rupees with any profit whatsoever. Also it became absolutely impossible to maintain the rate of exchange at 1 shilling 4 pence to the rupee. Consequently, after having made serious attempts to maintain the ratio at the old figure, the Secretary of State and the Government of India gave up further attempts to keep the rate of exchange within the old stated limits, namely, 1 s. 4½ d and 1 s. 3 29/32 d. So the rate was left free to take its own course. It at once began to rise, and as the price of silver went on rising the exchange also rose gradually from 1 shilling 4 pence, to 2 shillings and 4 pence.

This increase in the rate of exchange would have discouraged, in the ordinary course, exports of goods from India to foreign countries. But on account of the persistence of foreign demand for India's agricultural produce, the exports remained at the old figure. The balance of trade continued to be heavily in favour of India, and larger and ever larger amounts of silver had to be purchased in England for being coined into rupees. Heavy payments had to be made in India by the Government of India against Council Bills sold by the Secretary of State. The quantity of paper money also increased to a very great extent. At one time it became extremely difficult to maintain the convertibility of the paper money. The Rupees that were received by the Indian cultivators in exchange for their raw produce, did not come back, because, in the first place, silver bullion had become dear, and the Indian cultivator generally spends his money either in the purchase of silver ornaments, for his female folk, or over the purchase of sundry articles, like piece goods etc. These things also had gone up in price, and the demand for them being elastic, he kept back his money and did not spend as much as he might have otherwise done, in the hope of a fall in prices. The Indian mints worked day and night to meet the enormous demand for Rupees. The machinery was

almost at the breaking point, when, as good luck would have it, armistice was suddenly declared on November 11, and, after sometime, the war came to a close.

Before entering into a discussion of conditions of Indian currency after the last great War it may be of some interest to give some important figures so that certain points which have been mentioned above may become clearer. Reverse Councils worth about 70 million pounds were sold up to the end of January 1915. A net sum of Rs. 8 crores was withdrawn from post office savings banks. The price of silver was 27½ pence per standard ounce in 1915, in May 1919 it was 58 pence. On the 17th of December 1919, it was 78 pence. The rise in the rate of exchange was as follows —

3rd Jan	1917	...	1sh.	4½d.
28th Aug	1917	...	1sh.	5d.
12th April	1918	...	1sh.	6d.
13th May	1919	...	1sh.	8d.
12th Aug.	1919	..	1sh.	10d.
15th Sep	1919	...	2sh.	
22nd Nov.	1919	...	2sh.	2d.
28th Dec.	1919	...	2sh.	4d.

Currency after 1919. After the close of the Great War a committee was appointed under the chairmanship of Mr. Babington Smith. This committee recommended that the rate of exchange should be fixed at 2sh. gold to the Rupee, and that, in future, it should be linked with gold and not with sterling. This was the main recommendation. The committee was of opinion that the sterling, which meant English money, having depreciated in terms of gold, and there being no certainty as to the extent it might further depreciate, the Rupee should be linked with something which might itself be stable, if it was really intended to stabilise its value. The effect of the acceptance of this recommendation was that the rate of exchange which was 2s 4d Sterling (English money, was paper) at the time when the committee had submitted its report, jumped up to 2s 10½d. This difference measured the depreciation of the English money in terms of gold. The Indian member of the committee, Mr. Dada Bhai Dalal, appended a minute of dissent and said that no attempt should be made, at this stage, to fix any rate of exchange, and that for some time things should be allowed to take their own course. After a while, he submitted, the price of silver would come down, and the rate of exchange would also automatically come down, perhaps to the old level. There would be time enough, then, to decide as to what the final rate between the two currencies should be. His voice, however, was a cry in the wilderness. The report, as submitted by the majority of the committee, was accepted

by the Government of India and the rate was fixed at 2sh gold, which in terms of sterling, worked out as equal to 2s 10½d.

The effect of a rise in the rate of exchange is always to encourage imports and correspondingly to discourage exports. After the close of the war, foreign demand for India's products had considerably declined, and in some cases had altogether ceased. The industry of England which at the outbreak of the war had been converted from a peace footing to a war footing, again began to resume its normal aspect. English manufacturers, as well as others, were anxious to make up the past deficiency in the matter of production and sale of manufactured and other articles. When war was going on, they were seeing with great concern their markets being captured by countries like America and Japan. Now they wanted to recapture all those markets, as far as possible.

On this side, Indian consumers were almost starving for foreign made articles, some of which they were unable to get during the four years of the war. Many were constantly postponing their purchases till after the war, when they thought they would be able to get articles cheaper. So, already there were forces acting in the direction of discouraging Indian exports to foreign countries, and encouraging English and other foreign imports. Over and above this natural tendency, the recommendations of Babington Committee gave a great set back to Indian manufactures. The already dwindling export trade of India was almost killed by an abnormally high rate of exchange; while, on the other hand, the import trade, which was already receiving encouragement on other grounds, received a still greater encouragement, on account of the high rate of exchange.

An illustration may elucidate this point further. If the rate of exchange between India and England is one shilling four pence to the Rupee, an article which is worth £1 in England can be had for Rs 15 in India. If for any reason, the rate of exchange becomes 2s 6d, the same commodity can now be obtained in this country for Rs. 8. Naturally on account of this cheapness, it would begin to command a great sale in the local market. This was what actually happened in India after the acceptance of the recommendations of Babington Committee. General merchants, cloth merchants, and others who had not been able to get goods from England during the four years, found that they could purchase them now at highly favourable prices. So they sent heavy buying orders to foreign firms. A cloth merchant ordering goods worth £1000, had to make arrangements for Rs 8000 only for meeting bill in India, when goods were delivered. He thought like that, in the

expectation that the rate of exchange would remain at the old level; and no one could blame him for having formed that expectation. The Government of India had put their final seal of approval upon the recommendations of the Currency Committee.

So heavy buying orders began to be sent from India. But this was not the only factor. During the four years of the war, large profits had been earned by English companies working in India, like jute, tea, mining and woollen companies. Their profits, which amounted to hundreds of crores of Rupees, were accumulating in the Indian banks. It was now a favourable opportunity for them to transfer all these funds from India to England, as they could do this on highly profitable terms. By depositing Rs 8 with the Government of India, a person could entitle himself to get one pound in England. This transference of wealth, first began through the Exchange Banks. But when they alone could not cope with this demand, the Government of India was approached for sale of Reverse Councils. As a matter of fact, the sale of Reverse Councils was a measure recommended to be adopted only when the rate of exchange between India and England became weak. In 1920, when the rate of exchange was so high, there was really no occasion for the Government of India to have so readily agreed to sell Reverse Councils, or Sterling bills. But for unaccountable reasons, the Government of India agreed to do that and in spite of the protest of Indians of every class, and of every shade of opinion, the Government of India continued this policy. It sold them against credits that had accumulated in England during the four years of the War with the Secretary of State. They should have been transferred to India when the rate of exchange was more favourable. Instead of getting Rs. 8 for one pound, Rs 10, Rs 12 or Rs 15, could have been got, when the exchange had become normal. But the Government would not listen to any sane advice offered by any one in the country. To cut short this highly regrettable episode, it may be stated that during the three months that the sale of Reverse Councils lasted, between 10 to 20 crores of rupees worth of Reverse Councils were sold and in this way the resources of India that had accumulated in England were frittered away.

Somewhat the idea had gone round that the Government of India would not stick to the policy of fixing the rate of exchange at such a high figure. For this reason a sort of speculative movement had started in the country, which consisted in transferring large sums of money from India to England, in the hope of recalling it when the rate of exchange became more favourable from the speculator's point of view. An illustration may be given again. A person sends Rs. 8000 from India to

England at the current rate of exchange. He is credited for £1000 in England by any bank. If after some time the rate of exchange becomes 2s. to the Rupee, that is to say, Rs. 10 for a pound he would be entitled to get back at the current rate of exchange, Rs. 10,000, and so would make a profit of Rs. 2,000 within a short time.

This actually happened after the Government had failed to keep the rate fixed at 2s gold. After a few months it was announced that the Government would not make any further attempt to maintain the rate of exchange at 2s gold, but would try to stabilise it at 2s sterling. How easy it was for the Government to have made this announcement! So there was then really no necessity or occasion to sell Reverse Councils at Rs. 7 and a few annas per £ when they could have been sold so soon at Rs 10 per £. This announcement entirely shook the confidence of the people in the policy of the Government. A great deal of uncertainty arose in the minds of the traders, and trade activity declined. Business men discontinued, for the time being at least, their business activities. The Indian importers, who had sent heavy buying orders to England encouraged by a high rate of exchange, and had made arrangements in India to meet the bills according to the old rate found themselves in a very awkward situation. Merchants, who having ordered goods worth £1000, had arranged for about Rs 8,000 for meeting the bills in India, now found that at the current rate of 2s, sterling to the Rupee, they would be required to pay Rs 10,000 for meeting the same bills!

But to make confusion worse confounded, the Government of India, after making a futile attempt to fix the rate of exchange even at 2s sterling to the rupee and after having sold Reverse Councils of several crores at this new rate, gave up their attempt to stabilise the rate of exchange at any rate whatsoever and withdrew from the field, leaving the Rupee, the sterling, and the market free to take their own course. With this last announcement the prophecy of Mr Dadabhai Dalal turned out to be perfectly true. The rate of exchange came down to one shilling six pence to the rupee, with a persistent downward tendency.

The position of importers of British goods can be better imagined than described. They had now to pay about Rs 13 000 for goods worth £1000, which they had ordered under the expectation of having to pay only Rs. 8,000. Some Indian merchants paid the increased amount when consignments arrived, but many others refused to accept this increased liability, as they loudly protested, with a great show of justice, of course, that they were practically cheated into the bargain by the declaration

of the Government of India. After a great deal of trouble, and the creation of much bad blood, the matter was compromised between the Indian importers and English exporters.

The market rate which had at one time become 1s. and 4d. again rose and then became almost stationary at 1s 6d to the Rupee. In 1925 another Commission was appointed under the chairmanship of Mr Hilton Young to go into the whole question of the rate of exchange and other allied problems.

Hilton Young Commission This commission was appointed in 1925 and took evidence in India, Bombay, Delhi and Calcutta. Then it sailed for England and resumed its hearings in London. It finally reported on July 1, 1926. Its main recommendations were 31, but here we have no concern with all or even very many of them; we are only concerned with a few which we give below.

(1) The ordinary medium of circulation should remain the currency note, and the silver Rupee, and the stability of the currency in terms of gold should be secured by making it directly convertible into gold, but gold should not circulate as money. So the Commission recommended a gold bullion standard of India.

(2) It recommended the early establishment of a Central Banking institution called the Reserve Bank.

(3) The legal tender quality of the sovereign and the half sovereign were to be removed.

(4) It recommended re-introduction of one rupee notes, with full legal tender status,

(5) It recommended the amalgamation of the paper currency and the gold standard reserves.

(6) The balance of the reserve was to be held in future in Indian trade bills and Government of India securities.

(7) Stabilisation of the Rupee was to be effected at the rate of 1s 6d to the Rupee.

Sir Purshottam Das Thakur Das appended a minute of dissent to the majority report and submitted that the rate of exchange should not be 1s. 6d but that it should be 1s. 4d to the Rupee, as that was the natural rate. He went into the history of the Indian currency, and pointed out that Sir Henry Fowler's intention of introducing a full fledged gold standard was never implemented by English financial officials; and so he recommended that measures should be adopted so that gold standard may be introduced in the country after sometime. This

was, however, as much a cry in the wilderness as that of Mr. Dadabhai Dalal in 1920. The rate of exchange was fixed at 1s 6d. to the rupee.

As a matter of fact, whether by government manipulation, or by natural forces, the rate of exchange had become stationary at 1s 6d to the Rupee. Since 1916 the rate was fluctuating, but at 1s 6d it had come to stay. Indian businessmen maintained that this rate, 1s, 6d, was being artificially maintained through deflation in order to create an impression on the Commission that the rate of exchange had found its natural level. Any way, it was formally fixed at that rate in spite of the strenuous efforts of Sir Purshottam Das Thakur Das, and the members of the currency league. The Assembly accepted 1s 6d as the final rate against that recommended by Sir Purshottam Das which was 1s 4d.

1s 6d. Versus 1s. 4d. The whole country was divided into two camps on the question of the ratio. Those who belonged to the Bombay group, were for 1s 4d; while the Government was for 1s 6d. The arguments advanced were of a large variety and were sometimes very interesting. We give below only a few arguments on each side, especially those which were regarded as most important and telling by their supporters.

It was pointed out by the Bombay group that if the rate of exchange was fixed at 1s 6d to the rupee, it would mean that Indian exports would be discouraged and on the other hand, foreign imports would be encouraged. This they said, was not desirable. In the first place, the rising Indian industries would have to meet a keener competition from abroad. In the second place, in such markets as China, Turkistan and Africa, Indian goods will be at a disadvantage in competition with countries like Japan, European countries and England. It was pointed out that Indian agriculturists in their capacity as exporters would also be adversely affected to the extent of 12½% (the difference between 1s 6d. and 1s 4d worked out as 12½%). The rate of exchange according to them was being fixed at the higher rate for purposely discouraging the import of gold into the country which would readily flow in if the rate was 1s 4d as the latter rate would encourage exports from the country and discourage imports into it. The whole move was regarded as a sort of conspiracy whose object was to keep gold in England, and not let it reach India; also to discourage Indian exports and encourage English imports.

On the other side it was said that neither a *high* nor a *low* rate of exchange was of any permanent importance, as after some time wages and prices adjusted themselves to any rate, high or low.

It was only *rising* or a *falling*, viz: a fluctuating rate of exchange that was really harmful to the true interests of a country. Every precaution was therefore being taken to keep the rate of exchange fixed at 1s 6d, and that was best for the country. It was also mentioned freely that Sir Purshotam Das Thakur Das was speaking not for the whole country, but only for Bombay mill owners. As for the loss to the agriculturists of 12½% in the matter of agricultural produce, it was said that there could be no loss to the agriculturists, as the articles that they produced being necessities, and the demand for them being more or less inelastic, would not fall in price. Moreover, it was also doubtful if Indian agriculturists either gained much by a rise or lost much by a fall in the price of their articles. The middlemen might be affected to some extent, if at all, but that would be only for a brief period before adjustments took place. It was also explained by the Finance Member, Sir Basil Blackett that India was a debtor country and had to send large sums of money to English creditors in payment of interests and other dues, included under the phrase Home or English charges. If the rate of exchange was fixed at 1s 6d, the remittance of money would be affected cheaply, but if the rate was fixed at 1s 4d a greater number of Rupees will have to be collected in India before the English dues were paid up. If the lower rate was accepted, it would not be possible for the Government of India to remit provincial contributions which were falling heavily upon different provinces and which the Government was seriously thinking of remitting if the rate of exchange was fixed at 1s 6d.

This was the trump card in the possession of Sir Basil Blackett, and he used it very cleverly. Members belonging to other provinces than Bombay were caught in the net attracted by the bait of the remission of provincial contributions. As a result of this clever move the Government won the victory and the rate was fixed at 1s 6d to the Rupee.

From 1927 to 1939—The new Currency Act was thus passed in 1927 and it came into force from April of the same year. The main provisions of the Act were as follows:—(i) The rupee, half-rupee and currency notes should be legal tender without limit (ii) the gold coins, sovereigns and half-sovereigns were not to be legal tender any more, although they could be received in the treasuries at bullion prices (iii) Government were under statutory obligation to buy gold in unlimited quantities at the rate of Rs 21/3/10 per tola, the minimum quantity to be bought being fixed at 40 tolas (iv) Government were also under statutory obligation to sell at their option either gold or sterling, the minimum fixed for selling gold being 400 ounces about 1000 tolas.

The Indian rupee was thus held convertible at 1s. 6d. to the rupee either in gold or in sterling. At that time

there was no difference between the pound (gold) and pound (sterling) England being on a gold standard. So India again came back to the gold exchange standard and not to the gold bullion standard. Although notes of dissatisfaction at the rupee sterling ratio continued to be struck, the country gradually began to grow quiet and the affair was considered as closed. But fresh and far reaching developments were taking place in Britain—developments which could not leave India unaffected.

After having gone off the gold standard during the world war in 1914, British financial authorities were trying their level best to restore the old standard and again make London the financial centre of the world and a free gold market. During and immediately after the war of 1914—18 the value of sterling had depreciated in terms of gold. As America was still on the gold standard, the value of dollar had not deteriorated, and so the rate of exchange between the pound and the dollar measured the depreciation of the pound in terms of gold. After the cessation of hostilities, Britain took measures to raise the exchange value of the pound in terms of the dollar. From 3382 dollars to the pound in February 1920, it rose to 485 in May 1925. As the sterling had recovered its gold value the Bank of England resumed gold payments.

This resumption was, however, of a very short duration. It was brought about by manipulation and was not based on sound grounds. The Bank of England could not bear the strain of gold payments for long. Within a few years the gold stock of the Bank became very low and in September 1931, England had again to go off the gold standard. Gold payments were stopped and the sterling again began to depreciate in terms of gold.

The Indian rupee was linked to 1 s. 6 d gold and when it was so linked, in 1927, there was no difference between pound gold, or pound sterling. But now a difference has arisen, and so the question arose as to whether the rupee was to remain linked up with gold or sterling. Ultimately the financial authorities both in England and India decided that the rupee was to remain linked up with English money, the pound sterling and not with gold.

Although to all appearances there was no change in the existing state of things, yet a very important change had really been effected, one that set in motion the sale of gold, in India and its export from India to foreign centres, specially to England. After the delinking of the sterling from gold in September 1931, it began to depreciate and the cross rate of exchange between England and America began to go against the former. The sterling very soon depreciated to the extent

of 30 per cent as compared to the dollar and this measured its depreciation as regards gold. The price of gold began to rise in terms of the sterling and the rupee being linked to it, the price of gold began to rise in terms of rupee also.

On account of the great trade depression that had affected the whole world including India, conditions in this country were not at all satisfactory. India being an agricultural and so a raw-material exporting country, conditions here were even worse than they were in other countries. In order to meet their obligations people of different walks of life were compelled in certain circumstances to draw upon their savings which in many cases were in the form of gold ornaments. Now added to this factor of a more or less compulsory character, there was another of a different type. As the price of gold had gone up, many people, even though not at all pressed by their circumstances to do so, decided to sell their hoarded gold and take advantage of the high price ruling in the market. In this way large quantities of gold came out of Indian homes and a brisk export trade commenced and it continued for several year's even right up to the commencement of the war.

The effect of this export of gold upon the rate of exchange that had been fixed at 1s 6d. and which had begun to exhibit marked weakness during the period of depression was that the rate was toned up. A new export commodity had appeared in the field of international trade and India's balance of trade maintained its usual character. The rate was kept at 1s 6d sterling and although serious objections were raised by the educated people of India against the export of gold from the country, the Government kept quiet and firm in its policy and things went on as usual.

In 1935, the Reserve Bank of India was established and the Government of India transferred their monetary and currency functions to this institution. Thus it became the function of the Reserve Bank of India not only to provide all currency, paper and metallic, needed for internal purposes in the country but also to maintain the exchange value of the Rupee at the level previously fixed, namely, 1s 6d. to a Rupee. For this purpose the newly started Bank undertook to buy gold or sterling or to sell gold or sterling at rates which insured the undisturbed maintenance of the ratio previously fixed and settled.

The Bank continued to perform this function satisfactorily accentuated still further the tendency of buying sterling for purposes of remittance, a tendency which had begun to make itself felt as early as 1927. Formerly, the Secretary of State

for India sold Council Bills to make himself in funds in England whenever he had to make payments in England on behalf of India. This was found inconvenient and to some extent disadvantageous to India, as it was pointed out that the Secretary of State for India often sold Council Bills in excess of his requirements. The Indian authorities by buying remittances in India, it was contended, would limit themselves to the current requirements. The practice, therefore, developed of making payments to England not by accepting Council bills but by buying sterling here in the country and remitting it to England. This new method of meeting our liabilities is, however, as much open to abuse as the old one of selling council bills. There is nothing in law which restricts the powers of Indian authorities, Government or the Reserve Bank of India, in the matter of buying sterling. Even now it is possible for the Reserve Bank to buy more sterling than is needed for strictly trade or conventional requirements. That we possess a huge amount of sterling resources in England, while in India we have an equivalent amount of inconvertible paper money is a positive proof of the fact that the change over from the sale of Council Bills in England to the purchase of sterling in India has not introduced any material change in the general outlook of things.

From 1935 to 1939 several attempts were made by non-official bodies including the Working Committee of the Congress to bring about a change in the rate of exchange between India and England and bring it down to 1s 4d; but all these efforts proved unavailing. The Government of India announced their intention of sticking to the ratio. Their main argument of late had been that international conditions did not warrant any such change. It came to this, therefore, that so far any desirable change in India had to cross only one hurdle, namely, whether it did or did not suit England's requirements; but now it had to cross an indefinite number of hurdles. It was now not only the consideration of England's convenience but of that of the world !!

From 1939 to the present day.

Great Britain declared war on Germany on September 3 1939. India, on account of her political relations with Great Britain, had also to declare war at the same time. For a very brief period there was a little alarm, but very soon conditions settled and trade and business began to improve. Prices toned up everywhere and growers of food producers of articles especially of those needed for war purposes and, as usual, the middlemen began to make profits by the gradual rise in prices. The condition of labour also began to improve, firstly, because the producers wanted their services urgently

and so were prepared to placate them, and, secondly, because a new demand had arisen for them in the army that was going to be enlarged to great extent. For all these reasons the exchange rate became firm at 1 s 5/16 d to the rupee.

Foreign exchange was now controlled by the Reserve Bank which issued general instructions to all concerned. This control grew tighter with the lapse of time and the Reserve Bank took a very great amount of power in its own hands leaving other banks and institutions entirely dependent upon its own sweet will.

After the fall of France in June 1940, confidence was shaken and the demand for silver rupees suddenly increased. To meet the situation Government issued one rupee notes in July 1940. Also as the price of silver was rising, steps were taken to reduce the silver contents of the rupee—steps that were pronounced as undesirable by the majority of the Balington Smith Committee in 1920. By a Government *Communique* issued on 22nd December 1940 the silver contents of the rupee were reduced to one half. There was nothing wrong or unscientific about this measure the only comment that could be pertinently made was that this step could have been taken without any difficulty in 1920. But then the authorities thought otherwise!

At this stage a tendency set in which has caused far reaching changes in the financial relations between India and England and has also brought in its wake an enormous expansion of currency or inflation, whichever term may be used for the purchase. With the issuing of one rupee notes which were not convertible into rupees even of the reduced fineness, Indian paper money had become, absolutely inconvertible and there was now no check upon the Reserve Bank to issue any amount of it. As the Indian Government had to spend large sums of money in India on Britain's account, the latter could only give in exchange *promises* to pay at a future date. These are sterling securities. The Government of India, therefore, made disbursements of paper money in India in order to finance her own war requirements and those of England and her allies, while in return England promised to repay this amount by crediting India's account in the Bank of England by pledging sterling securities or the promotes of the British Government! So while on the one hand paper money issued by the Reserve Bank of India continued to increase at a rapid rate, our sterling assets in England also continued to grow *pari passu*. In September 1939, the amount of paper money in active circulation in the country was Rs. 186 crores; in June 1944 it increased to the stupendous total of Rs. 910 crores! At the same time our sterling reserve in England increased to more than Rs. 1,000 crores!

Before the outbreak of the present war our public debt to Britain was about £365 millions. It had been reduced to about £20 millions by the middle of 1944. So, while India was heavily indebted to Britain in 1939, she is now heavily indebted to India! This process is still going on. The war is not yet over, and India is still being used as the producing centre of war requirement for several theatres of war. Even now the problem of getting back our sterling resources from England has become acute and complicated. When the amount increases still further there will be greater inducement to Britain to repudiate our debt. Under ordinary circumstances a creditor refuses to grant further credit to a debtor who shows the least sign of bad faith. In the present case the debtor being in a politically strong position is talking glibly of virtual repudiation or at least freezing for a considerable period, and yet the creditor cannot but continue to grant further loans!

The rate of exchange is still firm at 1s. 6d. sterling, but how it will be manipulated after the war must be known only to the high financial authorities in Britain. We have only to wait and see.

CHAPTER XX

DISTRIBUTION OF WEALTH

The phrase 'Distribution of wealth' is a little ambiguous. It carries a different meaning in every day life from the one given to it by economists. It sometimes means, for instance, the distribution of any article of wealth, say, a manufactured product, among a number of persons residing in a city or any other region. This is, however, not the sense in which it is used in economic writings and discussions. In Economics it means the sharing of wealth, after it has been produced, among various factors of production, or, in simpler words, among the various participants in the work of production.

The problem of distribution obviously cannot arise as long as the work of production is confined to different members of the same family. A weaver while working in his home upon his loom is assisted in his work by different members of the family according to their respective capacities. Unwinding of the yarn is done by his wife; warping by grown up and active girls; sizing, either by himself or by some other grown up and intelligent member of his family; filling up of bobbins by his wife or grown up daughters; the frequent delivery of filled up bobbins by young boys or girls, and the actual weaving by himself. When the *than* of cloth is ready, there is no sharing of its sale proceeds among the various members. But when a person begins to work in association with members belonging to other families, and thus joins a *group* engaged in production of wealth, the problem of distribution at once arises. In the family, each worked according to his capacity, and consumed according to his needs; the head of the family being the sole arbiter of such affairs. But group composed of members belonging to different families cannot be governed by such simple rules. Here, each man works no doubt according to his capacity, but he also wants to get according to his own contribution to the work in hand. The reason is obvious. There is no family or any other tie among these workers, and, consequently, while each worker contributes to the work according to his capacity, he also wishes to be remunerated according to the same basis.

Let us suppose, for instance, that the objective of a certain community living near a forest is to cut down a tree, and then share the wood among its members. One member of this community has certain rights in this forest by virtue of which he may allow if he so pleases other members of the community to cut down the tree in return for some consideration. There are a few others who do not possess any such right, but they have with them some axes, a few saws and a number of ropes. Then

there are others who have neither any right in the forest, nor any axes or ropes etc., but they are active, lithe fellows. Some of them can also climb up the trees and maintain their balance while standing and working on a branch; while others do not know even climbing, but can work for a number of hours at a stretch. There is also one member in this community who, having participated in such a work on several occasions previous to this, has gained considerable knowledge of the whole thing, from beginning to end.

The different members of this community combine together, and the work is started in right earnest. Permission to cut down the tree is secured from the person who had rights in the forest; axes, hatchets and ropes are taken from those who owned them; the person with a previous experience of the operation undertakes to direct the whole operation; and the remaining members commence the actual work, some by climbing up the tree and separating big branches from the trunk and others in cleaning those branches of their leaves and in cutting the wood into convenient and smaller pieces. After a few days' work, the tree is brought down, and the wood is cut into big planks and other pieces of convenient size.

At this stage the question of sharing the proceeds of the tree among different members of the community arises. One with rights in the forest, pleads his case for a very substantial share, on the ground that the tree really belonged to him. Those who had provided axes, saws and ropes etc., maintain that without their implements, the tree could never be cut down, and so want an important share of the timber. The workers say, with a great show of justice, that their's was the hardest lot, and the most risky duty. Any one of them might have fallen down from the great height and broken his head or limbs. They frown upon the first two claimants and insist on getting a very large share per labourer. Lastly, the man who directed the whole operation, convincingly points out that, without his direction it would have been impossible to finish the whole work so nicely, expeditiously and without any accident whatsoever.

Thus each man has his special arguments in support of his claim for a substantial share in the yield of the tree. While the actual work of cutting down the tree was in progress each one co-operated with the other in the furtherance of the task. There was a complete harmony between different participants. But at 'sharing' time, each one is anxious to get as much as possible even though very little may be left for others. If every one is fully satisfied with the ultimate amount that each receives, the work of production will continue in future. If, however, serious conflict arises between different claimants of the joint product, the work will receive some set back,

Whether the work of production suffers or does not, it cannot stop altogether. Even after a great deal of discussion or a free fight, different members of the community, referred to above, must come to a certain agreement. When this agreement is reached, the work will recommence, and continue for a considerable time, unless there is a new hitch somewhere, on any ground, old or new.

It should be carefully noted that some members of this community are privileged persons who happen to be in a position of advantage as compared to others. They include those who possess implements and tools necessary for cutting the trees, and the persons who have come to acquire, in any manner whatsoever, certain specific rights in the forest, not possessed by others. The person possessing a considerable experience of wood and tree cutting, certainly possesses an advantage over other labourers; but the other labourers may, in course of time, gain this experience, and then his advantage will become relatively small. Ordinary labourers are obviously in the position of least advantage. In the first place, the work that they perform does not require any very great amount of skill; in the second place, their number, for this very reason, is quite large, and so not much importance is attached to the mere manual labour of each one of them separately.

This is, in short, the problem of distribution. It arises when production proceeds beyond the limits of a family and extends to a group of people more or less heterogeneous. The man with a right in the forest, corresponds to the landlord, who has somehow acquired certain rights in land not possessed by others. The persons who supplied axes, hatchets, etc. correspond to the capitalists who provide capital to industry either in the form of liquid resources (money used for productive purposes) or in that of capital goods (implements, tools, machinery, factory and farm buildings, etc.) The person who possessed a considerable knowledge of the whole technique of tree cutting and directed the operations in our illustration, corresponds to the organizer. He is essentially a labourer, but is distinct from other labourers, in as much as, he does not himself execute the work, but only directs it, and carries it to a successful finish. The remaining labourers, who actually cut down the tree correspond to the general class of labourers engaged in different activities of production. Some of them are skilled, as those who could climb up a tree, while others are unskilled.

Each one belonging to these classes—Landlords, Capitalists, Organisers and Labourers—is anxious to secure an increase in his own share; and this is possible only when the share of the class to which he belongs is the greatest. But if one class gets more out of a joint product, there will be so much less for others to share among themselves. Hence the conflict in distribution. The landlords possess an advantage over other classes and

claimants as they are in possession of a very important factor of production whose supply cannot ordinarily increase, however great the demand may be for it. The capitalists, also are in a position of vantage, because they own those appliances of production without which no work of production can be started. Both these classes have an advantage in bargaining. The organizers in certain branches of industry are very advantageously placed as compared to other classes, due to the scarcity of the talent and skill usually demanded in such industries. When that is so, no one can compare with them. But in numerous other branches of industry, this high degree of talent and intelligence is not always necessary; and that amount of it which is regarded as the minimum has now been acquired by a very large number of people. For this reason, they, as a class, are less advantageously placed than the first two classes. The labourers have practically no such advantage. Being usually unskilled and unorganized, their bargaining power is very little as compared to that of other classes.

So the main problem of distribution is to determine, if possible, those rules and considerations under which different classes of people get their share from the joint product. We will have to discuss, for example, why rent, interest, wages and profits are demanded and paid and what considerations play a part in determining their respective amounts. The rest of this book will be devoted to this discussion.

The National Dividend. Marshall explains "National Dividend" as follows:—

"The labour and capital of a country, acting on its natural resources, produce annually a certain net aggregate of commodities material and immaterial, including services of all kinds .. Also any income due on account of foreign investments must be added in. This is the true net annual income, or revenue of the country; or, the national dividend. We may, of course, estimate it for a year, or for any other period."

This means that the national dividend or national income of a certain country can be calculated by adding together the independent incomes of all individuals residing in that country, and deducting from this aggregate income the amount necessary to replace the raw material used up in the process of production and to make good the depreciation of capital goods needed in the process. This is the significance of the adjective "net" added by Marshall in his explanation above. A certain country has to pay every year certain sums of money to other countries in the form of interest or other charges; and has also to receive certain other sums on different accounts from them. The net income from such foreign transactions should also be allowed for—added or subtracted—in calculating the net income of a country.

In the matter of calculating national income it is important to remember that only those incomes should be counted which are measureable and are usually measured in terms of money. This will introduce, no doubt, a little complication and a little sense of unreality about the notion, but it is really unavoidable. For example, while the work of a domestic servant who is paid for it, will be accounted for in estimating national income, that of the housewife will not be, as she is not paid for her work. The very great income of satisfaction and pleasure that we derive every time that we see a natural scenery or a rare work of art, will not be counted as national income.

Also the satisfaction that we derive from the consumption or use of consumer's goods, even of the durable type, cannot be counted under national income as it is not measured in terms of money. But if we let out any of these goods or articles on hire or rent to some one else, the income that we then receive will certainly be included under national income. One important departure has, however, been made in this connection by British Income Tax Commissioners. They also include under personal income the satisfaction that a man derives by living in his own house. It is calculated with reference to the rent which the house would fetch if it were rented out to some one else. Marshall has included this income under national income and Pigou has also recognised it as such in his calculation of the national dividend.

Great care should also be taken that incomes are not counted over again in certain cases. If a professor gets Rs. 400 per month, and pays, say, Rs 65 per month to a stenotypist who works for him while he is engaged in writing a book, the incomes of both should be included in the national dividend because the stenotypist, in question, earns his income by giving in exchange for his pay, his services. But if the professor sends every month Rs 10 to a relative reading abroad, this amount should not be included under national income as it is not an independent income but merely an allowance.

Distribution as link Between production and consumption.

The ultimate aim not only of production but of every other economic activity is consumption or the satisfaction of one's wants. People produce wealth after considerable efforts and sacrifices, for the purpose of satisfying their different needs. In early times there was a direct connection between such human efforts and the satisfaction of wants; but when production began to be carried on in groups, the problem of distribution emerged. It was only after each claimant or contributory or class or individual had received his specific share, that any consumption could be possible. There was, consequently, no longer a direct connection between production and consumption but it had become indirect through distribution. Each individual, working in

a group would first get his share through distribution, and only then would be in a position to spend it for the satisfaction of his wants. It is in this way that distribution acts as a link between production and consumption.

As a matter of fact, the distinction between production and distribution is only a theoretical one. The joint product or joint income of a group is not distributed individually *after* it has been produced or earned jointly. It is earned *along* with the process of joint production and is received *before* the sale of the joint product. The share of every factor of production is settled with the organiser and he pays the share of each out of his own resources and at his own risk, much before the joint product commands a sale in the market. It is, however, true that if the price at which the joint product is sold does not cover the total expenses of production, including the remuneration of the organizer himself the work of production will not continue further. This is another instance of the indivisibility of various economic processes as production, exchange, distribution and consumption.

Mobility of the Factors of Production. The word 'mobility' literally means the capacity to move. The mobility of a factor of production, therefore, means the capacity that a factor possesses of moving or being moved from one place to another or from one use to another use. If we examine the different factors of production from this point of view, we will find that land is incapable of being moved from one place to another place, but it can certainly be used for different purposes. This implies that land used for one purpose may be withdrawn from it and put to some other use. A plot of land used for growing wheat may begin to be used for growing some other crop, if other conditions permit. So land is mobile as between different uses, but not as between different places. Agricultural land can also be used when a town extends in different directions for purposes of construction; while numerous plots of urban land have during the stress of the present war been profitably used for growing more food and vegetables.

The mobility of labour from place to place and from one use to another is much greater than that of land. At one time it used to be said that labour is the most difficult commodity to move from one place to another, but with the spread of education and knowledge of different places and their possibilities, and also under the growing stress of competition, labour has now begun to move readily from place to place in search of better and greater amenities of life. There is a great deal of difference in this readiness to move from one place to another as between people of different nations of the world. Englishmen are the greatest colonisers of the world, and they readily go from one

country to another if there are better chances of life in a new country. Indians, on the other hand, are rather slow to move. And when they after all decide to go out they find that they are not permitted to settle in other countries as freely as people of other countries come and settle here!!

As between one use and another, the mobility of labour in modern times has increased very largely. With the development in the use of machinery in every important industry, it has become easier for a labourer, possessing ability of a general character, to go from one industry to another. In countries where machinery has not yet come into general use, it is difficult for labour to change occupation. Indian labourers are more conservative, orthodox, caste ridden and not very well informed. They, therefore, do not usually change their occupation or place of birth. They possess specialised ability and so cannot take up a new occupation so easily.

The directing type of labour, represented by organisers, is very mobile indeed. Organizers are usually invited and readily go to long distances where their labour is needed. But capital is the most highly mobile factor of production, especially in industrial countries of the world as a whole. With the development of joint stock type of business, and with the ever increasing facilities of stock exchanges capital can be transferred very easily from one place to another, and shifted from one use to another use. With a slight difference in the rate of interest as between any two centres, large amount of capital would begin to flow. It can also be very easily withdrawn from one use and put to another. Cotton mill shares or Government securities may be disposed of in the market, whenever one likes to do it, and jute mill shares may be purchased instead. In short, banks and exchanges have rendered capital highly mobile. Political considerations, however, sometimes act as barriers in the way of free movement of capital from one country to another.

Equalisation of the marginal productivity of different factors of production The mobility of the various factors of production helps the organizers very greatly in substituting one factor of production for another in his business. As mentioned in the previous section, it is not always easy to withdraw or replace factors of production of a less mobile nature. Land or specialised type of machinery cannot easily be withdrawn or substituted for other factors. Still, if the organizer so decides, he can achieve his object, though after some difficulty. In the case of labour and capital, in general, there is not much difficulty. Working in accordance with the principle of substitution, the organizer is always experimenting with different proportions of his various factors of production. He is constantly engaged in making adjustments and re-adjustments with a view to make his business

yield the greatest amount of profit to himself. If he finds that any one factor has become more expensive, he will, as soon as opportunity permits, reduce its proportion and increase that of the other which may have grown cheaper, or, at best, is not as expensive as the first.

He forms a general impression of the expensiveness or otherwise of a factor with reference to its contribution to the joint product of the industry. If, for example, a particular machine does not add at least as much to the product of the industry as it costs him in interest, repair, and replacement, he will not like to keep it in use. Whenever an opportunity offers itself, he will not replace it, but will either have a different type of machinery, or may decide to employ two extra labourers, if they produce more than they are given in wages.

Thus the organizer has always an eye upon the productiveness of various factors of production, in relation to their expensiveness to him. The first few machines, or the first few labourers have in every case to be bought or employed; but with the addition of each succeeding machine, or with the employment of each succeeding labourer, he weighs the advantages and disadvantages of his course of action. Some amount of each factor of production is to be used in the business, however expensive it may be, but when this point is passed, he begins to rigorously check any further employment of it. He compares the productiveness of each succeeding unit of any factor of production with its expensiveness, and at the point when its expensiveness tends to exceed its productiveness, he stops any further employment of it and begins to substitute in its place a less expensive and more productive unit of another factor.

In this way, by the constant application of the principle of substitution, and by his continued vigilance, he keeps the marginal productivity (productivity of that unit of a factor of production which is almost equal to its expensiveness) of each factor equal to that of the other. If it is not so, and if the marginal productivity of a particular class of labour is greater than that of another class, or greater than that of a particular type of machinery, it means that the organizer should increase the quantity of the former or reduce that of the latter. He should always keep a balance between different factors and sub-factors, and this he can do only by keeping their marginal productivities equal, by substituting the less expensive and the more productive for the more expensive and less productive units of different factors and sub-factors of production.

CHAPTER XXI

RENT

Of the economic doctrines propounded by earlier economists in England, that of rent, as laid down by Ricardo, has been the cause of a fierce controversy. The Ricardian theory of rent and the Malthusian law of population have been two very great landmarks in the history of economic doctrines; but from the time of their inception down to the present day, the controversy round them has never ceased.

Ricardo was a Jew by birth, and a stock broker by profession. So his bent of mind was highly speculative. He revelled in abstractions, and sometimes made violent assumptions. He was fond of long chains of deductive reasoning which required a great deal of patience and a considerable amount of intellect to follow and understand. He was also not a very good writer though undoubtedly he was a great thinker. He did not qualify his phrases, even when they needed qualification; and so people gave different meanings to his words. Consequently, some important points of his theory of rent were only incompletely understood, and so excited criticism which was not really called for; while, in certain other respects, it was not very accurately worded and not adequately qualified.

Ricardian Theory of Rent Ricardo assumes free competition among different classes of people who are guided in their actions by intelligent self-interest. Custom and legislation have no force, and everybody is free to move from one place to another, and can give up one occupation for another.

Then he proceeds with his theory. He assumes that in a newly settled country all available land has been taken up by certain persons, who have installed themselves as its proprietors. This land is of different grades of fertility. When fresh immigrants come to this new country, they find that no further land is available for permanent occupation and utilisation, and so they decide to approach the earlier settlers who have begun to style themselves as landlords. Naturally, they go to those who have in their possession the most fertile plots of land. They want the right of using this land for the purpose of cultivation. The landlords are only too glad to allow them this right, because large areas of fertile tracts of land are available at different places. If they do not allow the immigrants to do this, the other landlords will very likely allow them. Moreover, many landlords have such extensive areas of this first class land lying unused that they do not mind allowing the new comers to use these tracts without demanding any thing in return from them except a recognition of themselves as landlords. They

think that plots which are thus occupied will at least be cleared of jungle growth, and freed from undesirable animals. They will also have the additional satisfaction of being called and recognised as landlord's by these new immigrants, all of whom are as they themselves.

So they gladly allow them the right to occupy the tracts of land in question. Each landlord argues in the same way, and arrives at the same conclusion. There is free competition even among landlords, and every one wants to gain advantage over the other, if possible. Owing to this spirit of competition among the landlords, the new immigrants do not find it difficult to get permission to occupy these naturally fertile tracts without having to pay any rent. Fresh batches of immigrants continue to arrive in this new country, and get permission to occupy the first grade tracts of land from one landlord after another on the same conditions, as long as plots of land are available.

But the stream of immigration continues to flow unchecked. Tracts after tracts of first grade land are brought under occupation and cultivation till there are no further tracts left of this class of land. In the beginning the demand for agricultural produces was not much, and so not difficult to meet. But with the increase in population, this demand also goes up and does not show any sign of abatement. All the first class tracts of land were so far no-rent paying lands, in the first place because such tracts, on account of their abundance in the beginning, were almost like free goods. In the second place, there being free competition among landlords, each one wanted to avail himself of the opportunity of getting the plots of land lying idle cleared, cleaned and properly cultivated. In the third place, the demand for agricultural produce was not very great, and so its price was also very low. There was no possibility whatsoever of any immigrant agreeing to pay any rent whatsoever for the simple reason that prices were so low that he could not afford to do so.

These conditions now change. New immigrants continue to come in, and finding no fresh land for permanent occupation approach the landlords, as usual for permission to occupy the most fertile plots if still available. By this time, however, the first grade plots of land, which yielded, say, 40 maunds of wheat per acre with a given amount of labour and capital, have all been taken up, and occupied. The landlords offer these new immigrants their second class plots of land which, it was supposed, yielded, say, 30 maunds of wheat per acre. Finding no other alternative, the later immigrants agree to bring under occupation the second class plots and begin to support themselves

and their families with its yield, but in so doing they charge higher prices for their products.

On account of the continued increase in population, the prices of agricultural produce tend to go up thus making it possible for the latest immigrants to support themselves and their families very well out of the sale proceeds of even the reduced yield from the second class plots. Those who came early and got from the landlords first class plots, now find themselves in a favourable position. With prices higher than before, they too could support themselves and their families if their lands had not yielded more than 30 maunds of wheat per acre. But the yield from their plots is 40 maunds per acre. So they get a surplus of 10 maunds of wheat per acre. The amount of labour and capital applied per acre of land by both the earlier and the later immigrants is exactly the same. The standard of living of both is not at all different. The price of wheat in the market is such that a person can support himself and his family by cultivating a plot of land which yields only 30 maunds of wheat per acre. All his expenses of production are met out of it, leaving him a fair margin of profit.

The landlords of the first grade land now begin to think furiously. Under the changed conditions, when equally good people are supporting themselves and their families on second class plots, they rightly think that there is no reason why any surplus produce should remain with the cultivators or occupiers of land of the first grade, and why it should not be appropriated by themselves who were the first to reach this new country and, after braving all the unknown dangers and putting up with a number of hardships had brought these tracts of land under their permanent occupation. So they compel the occupiers of the first grade land to part with the whole or at least a part of this surplus to them in the form of rent. This is how rent emerges.

Economic Rent and Contract Rent. Rent is that amount of money or produce which is paid by the user of land to its owner every year or any other period of time. We pay rent for agricultural land, as also for a building. The latter, however, is not pure rent. Rent as defined above is a payment made for the use of land. A house, however, consists of land as well as a structure over it, which is capital. So, the rent that we pay for a house, is not pure rent, but is a mixture of rent and interest, in varying proportions. If we separate this element of interest from the amount that we pay as rent of the house, that which remains will be pure ground rent, as defined above.

In agricultural land, also, there are sometimes improvements of a permanent nature. The rent of such a land cannot be called pure ground rent, unless the payment which is made in consider-

ation of the permanent improvement is deducted therefrom. Whether it is possible in actual practice, and whether it will serve any useful purpose, is a different question altogether. Just at present we are discussing the theory of rent, and so its theoretical aspect has been placed before the reader.

In the illustration given above, the surplus remaining with the first immigrants was supposed to be 10 maunds per acre after the second class land came under cultivation. This represents the extra profit above the cost of production. This is the amount which can be charged by the landlord from the tenant. It is called economic rent, and the landlord is theoretically justified in getting back the whole of it from his tenant. It is, however, open to him to charge something less than this entire surplus. He may, for instance, not charge 10 maunds per acre, but only 8 maunds. In such a case, both the landlord and his old tenant share the surplus between themselves in the ratio of 4 : 1. But circumstances are such that the tenant cannot leave the land under his cultivation or does not want to leave it, the landlord, unless he is a particularly generous-hearted person will not let him share any part of it, but will appropriate the whole of it himself. He may go even further, if he is not very scrupulous, and charge even something more than the real surplus. He may, for example, demand 12 maunds of wheat per acre from his tenant.

If there is perfect mobility among these people, namely the tenants, or the new immigrants, and they can leave this place and go elsewhere, or give up farming as an occupation and adopt another, and begin to support themselves equally well, they will never agree to pay more than ten maunds. But if that is not so and they can neither leave their old place nor can they adopt any other alternative occupation they will have to meekly submit to the exaction of the landlord. They will have to agree to pay even more than the real surplus, the economic rent, and, in consequence, their normal profits or earnings whereby they supported themselves and their families will decline, and their standard of living will have to be lowered. Before the passing of recent tenancy legislation in several provinces under the congress ministries many tenants-at-will in India had to pay a rent higher than the economic rent. That amount of money or produce, which the user of land agrees to pay to the landlord every year or any other period of time, irrespective of the real surplus, is called Contract Rent.

Contract rent may be more or less than the economic rent. In countries where cultivators are literate and enlightened; where they are ready to move from one place to another; and where there are a number of occupations which may be adopted if they decide to give up farming, contract rents are much lower than, and seldom come up to, the economic rents. This is the

case in England But in countries where cultivators are illiterate, and unwilling to move from one place or village to another, and where cultivation of land is the only occupation which has to be adopted by the vast majority of people, contract rent are very often higher than economic rents. This is called rank renting, and was prevalent in India upto very recent times.

471

In order to form an idea of the exact surplus over the cost of production, or, in other words, to determine economic rents, there is one thing which is very essential but, at the same time, very difficult It is necessary to determine the real cost of production of different agricultural crops. The cost of production, or, more correctly, the expenses of production, cannot be determined unless normal profits are determined For this latter process, it is necessary to keep in view the standard of living of the cultivators of that class. If we only take the current standard of living, that is to say, if we take things as they are it cannot help us at all. The current standard of living of most of our cultivators is practically no standard. So it means that we have, first of all, to fix a minimum standard of living below which we should not allow cultivators to go. Then we should determine the amount which should be regarded as normal profits of that class of cultivators These profits should then form one of the items of expenses of production. In this list of items should be included, among others the amount of premium to be paid by the cultivator for insuring his cattle Any thing over and above this cost of production, determined in this way, is a surplus which can be rightfully claimed either by the Zamindar or the Government, as the case may be.

The rough and ready method adopted by Settlement Officers in India for fixing rents and revenue upon Rāyāts and Zamindars, is, no doubt, convenient; but it is not scientific and just. That adopted by Zamindars with their tenants is only the demand and supply method, where the supplier of the thing—land—has a virtual monopoly, while those who have a demand for it know nothing of the nature of the thing and of the use they are going to make of it They only know that the thing has to be obtained at any cost and at any price¹

We can now see for ourselves how far the Ricardian theory of rent is applicable to Indian conditions Here, there is only one sided competition; that is to say, competition only among tenants. There is no mobility of labour as between one place and occupation and another. There is almost perfect illiteracy, simplicity and helplessness, on the one side, while astuteness, organization and power, on the other.

Recardian theory illustrated by a simple diagram.—Let us suppose there are four grades of land—A, B, C, and D. Their respective yield, after the application of a given number of doses of labour and capital is, say, forty, thirty, twenty ten maunds of wheat per acre.

The first plot of land, being the most fertile is first brought under cultivation. As land is available for cultivation, landlords allow the new immigrants to bring specific areas under their use. The demand for agricultural produce not being much on account of the sparseness of population, the price of agricultural produce is also not high; but is high enough to enable the cultivators to support

A 40	B 30
C 20	D 10

themselves according to their usual standard of living. So plots of grade No A are brought under cultivation.

At first they will be no-rent paying plots, as there is no surplus product, but only just enough to remunerate the farmer for his expenses of cultivation, which always include his normal profits.

When population increases, and all plots of grade A are occupied, demand arises for more agricultural produce, and people feel inclined to pay even higher prices rather than go without the produce. Encouraged by this tendency, and finding no plots of land of grade No A, plots of grade No. B are brought under cultivation. They yield only 30 maunds of wheat per acre, but due to a rise in prices, can support the new cultivators with the same ease and comfort as those of grade No. A supported the earlier immigrants. Plots of grade No. B now become no-rent paying plots, while rent emerges on plots of grade No A. The difference between the yield of the two is 10 maunds of wheat. The second grade land being the no-rent paying land is on the margin of cultivation, that is to say, it yields just enough to support the farmer, and does not leave any surplus. Any surplus over this marginal cost is rent. In A plots of land it is 10 maunds of wheat per acre. This is true economic rent.

In the same way, when more immigrants come, and the demand for agricultural produce still further increases, all plots of grade No B may also be taken up in course of time, and plots of grade No. C may begin to be occupied. These plots in their turn, now become no rent paying, or on the margin of cultivation. The price of agricultural produce goes

up to such an extent by this time that it enables new immigrants to support themselves according to the usual standard of comfort even with the sale proceeds of the reduced yield of these inferior C class plots. Rent now emerges on plots of grade No. B and will be, or can be, 10 maunds of wheat while on plots of grade No. A it will increase to 20. The difference between the yield of the marginal land and that of the better or best plots, is the rent surplus. So we conclude that as the margin of cultivation is extended further the rents on superior plots of land continues to rise

Rent in Intensive and Extensive Cultivation—When the demand for agricultural produce increases, there are two methods by which this demand can be met and the produce increased. Either new plots of land are brought under cultivation, or old plots of land are cultivated more intensively. In each case the yield of further doses of labour and capital declines; in the first case because new plots of land that have to be brought under cultivation are likely to be less fertile, and in the second case of the operation of the diminishing returns additional doses of labour and capital do not yield as much as the previous doses. When fresh plots of land are brought under cultivation for raising extra agricultural produce, the system of cultivation is called intensive; if more doses are applied to the same plot of land, the system of cultivation is called extensive. In new countries, where there is no scarcity of land, extensive cultivation prevails, while in old countries, where fresh land is not available and population is dense, intensive cultivation is resorted to. The cultivator weighs carefully the advantages and disadvantages of extensive cultivation. Before he applies any extra dose, he compares the yield which he hopes to get either by bringing under cultivation a fresh plot, or by applying an additional dose to his old plot. Suppose the problem before him is something like this —

40	30	25	20	12	10
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The horizontal rectangle represents extensive cultivation; while the vertical represents intensive cultivation.

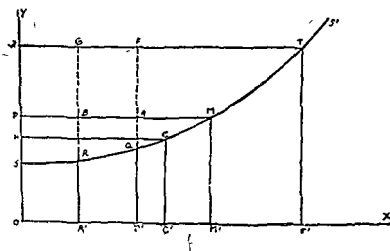
In either case the yield continues to decline and the rent continues to grow. The cultivator will carefully compare the yield which he can get by an extra dose on his old plot with that

which he can get by applying it to a new one. He will adopt that method which appears to him to be the cheapest and most paying

The first dose yields 40 maunds of wheat. If he wants to apply the second dose, he will clearly bring a fresh plot under cultivation, as this plot also will yield him 40 maunds. But after applying two doses in two different plots, if he wants to apply a third dose, it may not be possible for him, to get a third plot of equal fertility. In our illustration above, the next plot yields only 30 maunds per acre per dose; while his first plot can yield 38 maunds to his next dose. So he decides to apply the third dose on the first plot. The fourth dose if applied intensively will yield only 22 maunds but if applied on a new plot will yield 30 maunds. Clearly he could bring under cultivation another plot of land; but, in the first place, it is not easy to get fresh plots for extensive cultivation in an old country; and in the second place, it is difficult to look after a number of different plots which may not all be situated at one place.

40
38
22
20
14
11

In extensive cultivation, rent is determined with reference to the yield of the marginal land and that of any other which is not on the margin. In intensive cultivation rent is determined with reference to the yield of the marginal dose and that of any of the previous ones. The difference between the yields of the two is economic rent.



Another Diagram—If we measure expenses of production along OY and the amount produced, either on different plots, or from different doses, along OX, we find in the diagram given below that MM' measures the expenses of production of that amount of the commodity which is produced at the point M'. The expenses of production of the whole amount OM' are represented by the area OMMS. In the market, however, the whole amount will be disposed of at the same rate, for OM' multiplied by MM', that is to say, the amount produced multiplied by the price per unit of the commodity. This is represented by the area OMP, which is bigger than OM'S, the total expenses of production. The difference between the two is MPS, which is the surplus that accrues to the producers of the commodity. This will be called producers' surplus if the producers are peasant proprietors. But it will be called economic rent if it is paid to landlords by tenants when land does not belong to them.

Rent does not determine but is determined by price—In the above diagram, MM' measures the marginal cost. It represents the cost of that amount of produce which is raised on the least fertile plot of land or from the last dose applied at a particular time. It is, therefore greater than that on less unfavourably situated plots of land, or on better grades of land. Thus while MM' represents the cost of production of the land on the margin of cultivation, QQ' represents the cost of production of a land of a better grade, and so more fertile, while RR' represents the cost of production of a still better grade of land. The price of the produce in the market shall have to be such as to defray the highest marginal cost of cultivation. The plots of land at Q' and R', therefore yield a surplus which is measured in the diagram by QA and RB. The price at which wheat will sell will be uniform throughout. It must fully cover the marginal cost of production, namely MM', and will, therefore, leave a surplus of QA and RB, over more fertile plots or earlier doses.

Now the height of QA and RB, that is to say, the surplus produce or rent, at Q' and R', is determined by the position of MM' which measures the marginal cost, and also represents price. If it is higher, say TT', it means that the equilibrium is established at T. The total price at which the amount OT' will be disposed of in the market will be OT'TW, and the producers surplus or rent will now be represented by the area STW, which is much greater than the previous area SMP. It will also be noted that with a rise in price represented by TT', the rent at Q' which was previously QA now rises to QF and that at R', which was previously RB, now rises to RG. This means that when price rises, rents rise.

On the other hand, if the price which was formerly MM, now falls, for one reason or the other to CC' the area of rent previously represented by S M P will now be represented by SCH which is a smaller area. This means that when prices fall, rents also fall. So with a rise in price, rents rise while with a fall in price they fall. Rents are, therefore, not the cause of high price; but high price is the cause of rents. The above is a graphical representation of this statement.

Rent does not emerge as long as price does not rise above a particular level. When demand for agricultural produce increases, its price rises; when price rises, rents emerge. High price is the cause of rents, not its effect.

Circumstances when rents affect price—There are, however, certain circumstances when rent does affect price. If, for example, landlords combine among themselves and decide to charge rent even on the worst lands, the price of agricultural produce will have to be raised by the extent of the rent charged on land which really ought to have been a no-rent paying land. Also, when land is diverted from one use to another, that is to say, it instead of sugarcane, suppose wheat begins to be grown on it the landlord will demand at least as much rent as he used to receive before whether the new use to which his land is put proves profitable or does not. Suppose it does not prove profitable to grow wheat; the landlord, however, will not pay any attention to this. He will charge the old rent even though with reference to wheat the land may be really marginal. In such a case there are two possibilities. Either the cultivator will have to bear the burden of this rent; or he will include it in his expenses of production and try to shift it on to the shoulders of the consumers.

Is there anything special about rents?—For a long time, rents continued to be regarded as belonging to a special category. It was supposed that there was a fundamental difference between rent and shares of other factors of production. To some extent, the idea was well founded. The distinction between rent and other shares is based upon certain essential points of difference between land and other factors of production. Even in this connection it may be said that the distinction between land and other agents is now not so sharp as it was considered to be some time back. Three points of distinction were usually mentioned.

(i) Land is indestructible while other factors of production are, sooner or later destructible. Apparently the distinction is very marked, but in reality it is not so. Even land is not

indestructible if we keep in view its chemical and mechanical properties. After being kept under cultivation for centuries every plot of land loses its old properties and develops new ones in the hands of those who use it. By a careless use, its properties are very soon destroyed, as they are in the case of other commodities. Where a plot of agricultural land becomes useless for cultivation or other purposes, it goes out of calculation, as does a machine which is thrown on the scrap heap. The machinery does not go out of existence, but it goes out of calculation. Plots of land which are used in connection with brick kilns, are rendered useless for agricultural or any other purposes. Thus it is not quite accurate to say that land is indestructible. To this, however, it has been replied that some properties possessed by land, for example, space, situation and support are really indestructible. This may be right, but how can a man make any use of mere space and location, if the plot of land does not possess the property to support. The point, however, need not be carried further. It may be said that there is undoubtedly some distinction between land and other forms of capital goods but it is not as fundamental as it was once supposed to be.

(ii) Land is a free gift of nature while other forms of capital goods are not so. This too, is right, but only to a small extent. Land is certainly a gift of nature, but an agricultural farm is not so. Man, by his labour and skill, introduces so many changes and improvements in his environments that there remains very little of the 'free gift' really visible anywhere. Still, as mentioned above, here too there is some element of truth.

(iii) Lastly, it is said that land is limited in quantity, while other factors are not so limited. This distinction is again worth consideration. The area of land is certainly limited; its length and breadth are fixed, but man has not much concern with its length and breadth. He wants to use it only for certain specific purposes, for example, for growing crops, for constructing buildings and so on. If by improvement in the art of cultivation, twice as much yield can be raised from the same area as before, or, if by a great improvement in the art of construction, twice as many stories can be erected on a piece of land as before; is it not equivalent to an increase in the area of land by twice as much? And what can happen once may happen again, and a number of times. In this way, does it make any real difference if its quantity is limited? Even here it will have to be admitted that there is undoubtedly some substance in the distinction. We see rents rising to fabulous heights in central areas of cities like London and New York.

So, when there is at least some distinction between land and other factors of production, there is no wonder if rent, which is the payment for the use of land, is regarded as slightly different from other shares like, wages, interest, and profits, which are the payments made for the services of labour, capital and organization.

The Cause of Rent—Rent arises for the same reason as does price of any commodity or service. A commodity is demanded because it is regarded as possessing the capacity to satisfy a particular want, but is not plentiful enough to satisfy the demand of every one concerned. That is to say the commodity in question is scarce. Exactly the same cause operates with reference to land. When it becomes scarce as compared to the demand for it, it begins to command a price. If a man does not want to buy it, but only wants to acquire the right to use it, its owner will demand some rent. In this respect it is not different in any way from other commodities or services. But the difference emerges a little later. When the demand for it rises still more, its price and the price for its use, *viz* rent, continues to rise but its supply cannot increase in response to the demand for it. Its scarcity is more or less permanent. No doubt, it is possible for new sources of supply to be discovered and to be brought into use, as happened with the discovery of America, settlement of other new colonies and the development in the means of transportation. This has the effect of checking the continuous rise of rents with the progress of society and the increase of population to some extent and for some time. But new lands are not discovered every day, and after some time new colonies also become old countries, with a dense population, or at least have a tendency to become so. Rents, therefore, again begin to rise. So we find that the cause of the rise of rents is not a new one, but there is certainly in its later stages an element of peculiarity which is not found in the case of other factors.

The other cause of rent is the tendency to diminishing returns. This, too, is not peculiar to land alone. If there were no diminishing returns in agricultural land, the world's supply of wheat could theoretically be raised from one farm alone. But if it were not applicable to urban land, the whole population of London could be accommodated in one building of countless stories! There are, however, idle conjectures. We know that nothing like this is possible, but we also know that diminishing returns operate not only as regards land alone, but also as regards labour, capital and organization. There is, however, the important difference that when diminishing returns are caused by a scarcity of labour capital or organization, the tendency is not of a permanent nature, because

the supply of these factors cannot remain fixed for more than a short period. Not so, however, in the case of land, where diminishing returns, when they begin to come into operation are kept back with very great difficulty, and then, too, for only a short time.

Factors Affecting Rent—There are four important factors that affect rents namely (i) increase of population, (ii) improvement in the means of transportation, (iii) improvement in the arts of cultivation and (iv) general progress of society. We will take these points one by one.

(i) We have already seen above that rent emerges only because of the increase of population and the consequent increase in the demand for agricultural produce. Rents are, therefore, very greatly affected by an increase or decrease of population. In densely populated tracts, rents are high. Urban rents are more sensitive to population and demand than rural.

(ii) With the development in the means of transportation, rents are affected differently in different areas. If, for example, the means of transportation between a predominately agricultural province and another province are developed, and agricultural produce begins to be exported from the agricultural province to the less agricultural one, the first province will have to be both extensively and intensively cultivated to a greater extent than before. Rents will therefore, rise in this province. But in the importing province, some plots of land may have to go out of cultivation as they may not be found productive enough to compete with the import produce from the other province. Consequently, they will now be less extensively and intensively cultivated than before, and rents will fall. When means of transportation, by sea and land between India and England, on the one hand, and England and America on the other developed, agricultural produce began to be sent for India and America to England. Rents increased both in India and America but decreased considerably in England.

(iii) Improvements in the art of cultivation produce very interesting results. If they are confined only to a small area and only a few individual cultivators, they will bring about an increase in the produce of these individuals alone, and the rents on such plots of land will be greater than before. The improvement brought about by new methods of cultivation will increase the income of the individual cultivators, or if it has been brought about by zamindars in the form of watering facilities or enclosures, etc., they will charge higher rents in order to recompense themselves for the improvements introduced.

If, however, the improvement in the art and methods of cultivation is general, and has resulted in increase of the agricultural produce without any corresponding increase in the demand for it, rents will have a tendency to fall. With the improved methods of cultivation, it is not necessary to keep under cultivation the same area of land as before. Some plots of land, therefore, and these the least fertile and the most unfavourably situated, will go out of cultivation. The margin of cultivation will thus be lowered and rents will fall.

(iv) The effect of general progress of society is the same as an increase in population, a development in the means of transportation and improvements in the arts of cultivation, taken together. Whichever of these elements is supreme any where, it will affect rent in its own way. In urban areas, however, the effect of general progress of society is always an enhancement of rents. There are also great changes and modifications sometimes in the trend of agricultural rents. With the progress of society, social valuation of goods, both industrial and agricultural is markedly changed. New crops, therefore, may have to be grown and some old ones may have to be given up. This will have an important effect in influencing rents; but each case will have to be discussed on its merits, and no general statement can be given.

Rent a leading species of a large genus. Marshall rightly regards rent not as a separate class by itself but only as a leading species of a large genus. The outstanding characteristic of this large genus to which rent belongs is the limitation of its quantity. There are several other things whose supply is limited by nature, or whose supply becomes so far limited during certain periods that for all practical purposes and during this period at least, there is not much difference between those things which are limited by nature and those whose supply becomes limited for other causes.

During the Great War, for example, the supply of merchant-ships became restricted, owing to the submarine campaign of Germany. During this period, the owners of existing merchant-ships earned a profit, which had no connection whatsoever with their cost of production. This is the real characteristic of land whose price has no reference to its cost, but is determined mainly by the force of demand. So, capital when it becomes scarce, can also earn a profit, which is of the nature of rent.

As in the case of capital, so also in the case of labour or organization. If the supply of any class of labour runs short, the existing number of labourers will begin to earn higher wages, which may have really no connection with their normal earnings and their standard of living.

All such earnings of various factors of production, which are in excess of their normal earnings and are caused by a temporary scarcity in their supply, are called *quasi-rents* by Marshall. Thus we go imperceptibly from rent to *quasi-rent* and then to interest, which is earned by such capital goods whose supply can be increased whenever the demand for them increases, and lastly to wages and profits which are earned by labourers and organizers whose supply does not run short.

Personal Rent. There are certain persons who are so far superior to others in the same sphere, and whose superiority is so much inexplicable on other grounds that it is attributed to their innate and original qualities, which one rarely comes across in everyday life. The earnings that they make on account of this personal superiority, or the homage that they command in the public for this inherent superiority of talent is their personal rent. Henry Ford and Mahatma Gandhi possess this element of personal rent to a very great extent.

Historical argument against Ricardian theory of rent. Many criticisms have been levelled against the Ricardian theory of rent. It is difficult and also not very necessary, to mention all of them. But a few may be briefly touched. American economists have objected to the theory on historical grounds. They say that the most fertile plots of land were not occupied first, as supposed by Ricardo. It should be admitted at once that Ricardo did not attach as much importance to situation as to fertility, but by his best lands we should understand not necessarily the most fertile but also those that were favourably situated. Many considerations sway an individual before deciding upon his best land. If a plot of land is very fertile, and is also very well situated, but all round this plot, and trees in the plot, there are cobras. If that is the case, no one would really like to take up such a plot of land for cultivation, unless he cannot find any other and cannot do without cultivation at all. There is a considerable risk which takes away a great deal from other qualities of the land. By best lands Ricardo meant those that could be brought under cultivation with the greatest advantage, keeping in view the totality of circumstances.

It is said that there is no land in man's experience which may be called no-rent land. Here it may be said that although zero is not equal to nil, it is almost equal to nil. The same is the case with no-rent land. No-rent land should not be taken to mean strictly that land which has absolutely no rental value. It should be taken to signify that land whose rental value is practically nothing. On both sides of a river, land is practically no-rent paying land. *Usar* land is again almost no rent paying land. It may also be added here that no body can seriously contend that there are no no-rent paying lands in new countries, like Australia, Canada and America or in unexplored regions or China, Russia and Africa.

CHAPTER XXII.

WAGES.

Peculiarities of labour as an agent of production As pointed out elsewhere the general theory of distribution is only an application of the general theory of value to the various factors of production. Labour is, therefore, no exception to this. The problem of wages can be discussed, like other problems of distribution by slightly modifying the theory of value, so as to meet the requirement of the case. In the application of the theory of value to land, we saw that it did not differ at all, from the general theory of value on the demand side. But there was an important peculiarity in land as regards its supply. While the demand for it continued to increase its supply could not adequately respond to the demand; and this was discovered not to be merely its temporary phase but almost a permanent characteristic. Only one blade of the scissors worked, while the other, though in position, and therefore, playing its part in cutting a piece of cloth, did not move. In the case of labour also, although the general theory of value is applicable to a considerable extent, yet a few important modifications are necessary to make it fully applicable. In this section, we will first discuss a few peculiarities of labour which distinguish it from other factors and from ordinary commodities.

(i) The first point to be noted in this connection is that any amount of money invested in a young man by his parent or guardian cannot be withdrawn, but becomes irrevocably his own. This investment is in the first place, very risky and in the second place, when once made, it cannot be re-adjusted or withdrawn. Human life is extremely uncertain. After investing a considerable amount of money in a young man, many a parent has suffered mental anguish and material loss by his untimely death. Again, it often happens, that the hopes formed by the investor are not fulfilled, not only because the young man does not succeed in the line in which he was placed by his parent, but because after succeeding in life the young man turns his back upon his old parent or guardian. Under these circumstances, it requires a great deal of far-sightedness, and a greater amount of self-sacrifice, to make a considerable investment in this living machine. There are some parents who have no idea of deriving any personal benefit, but have only a desire to see the young man well established in life. Not all parents, however, can be so self-denying, especially in a poor country like India. It is for this reason that free and compulsory education of children, above a certain age has been taken up by the State in all advanced countries of the world; while secondary and higher education is left to parents or guardians. The necessity is supplied by the State, leaving comforts and luxuries to be supplied by those who have the will and means to do it.

(ii) Land and landlord, capital and capitalist, an article and a trader, are separable one from the other; not so, however, labour and labourer. The two are inseparable from each other. A labourer has to be present where his labour is needed. A brick ~~seller~~ does not mind whether the bricks manufactured by him are used in the construction of a palace or in that of a *Nala*; but a labourer certainly minds whether his labour is needed in a clean quarter or in a particularly dirty one. If he remains at work in dirty quarters for a considerable period of time, there is a very great danger of his health getting impaired.

Also a labourer, being, after all a human being tries to find out something not only about the surroundings where he is required to work, but also about the man under whose directions and control he has to work. If his boss is of a particularly sour temperament, he may think twice before accepting service under him, even though other attractions may be present.

(iii) A labourer requires some articles for his own consumption and use and some others for that of his family members, every day. So, his daily expenditure is more or less fixed. He must earn enough to satisfy at least the elementary needs of himself and his family. This is, it should be remembered, irrespective of whether he is employed or not. If he remains out of employment for, say, a week, he cannot stop all his consumption and that of his family. He can certainly curtail it, and that he always does during a period of unemployment, but he cannot altogether stop it. During this week, he must become indebted to some body, if he has no reserve of his own to fall back upon. He remains idle and his time is wasted. What he loses during this week cannot be regained in any subsequent period. Thus it is said that labour is perishable, that labour lost once, cannot be regained. This is a great drawback, and it becomes still more serious when a labourer has to support a family. That is why it is so often emphasised though without producing any appreciable effect, that a person should never marry unless he has obtained a *permanent* job, or has an adequate reserve of *his own* to fall back upon in case of need.

(iv) But this is not all. Because he cannot remain out of employment for any period whatsoever, owing to the numerous demands upon himself and his purse, he cannot stand on equal ground with his employer. Under the threat of dismissal, the labourer—a teacher, a clerk, a professor, a judicial or an executive officer or any other employee—can be made to do things which otherwise he would never like to do. This abject dependence of labour, in general upon employers, deserves serious consideration of those who are interested in such things.

(v) The increase in the supply of labour, if there is a sudden increase in the demand for it, cannot take place very soon. Labourers are not like commodities which can be produced in

any amount or number whenever demanded. It takes a long time to bring up, train, and properly qualify a young man for a particular job or task. It is a different thing altogether that tens of thousands, or even millions, of agricultural and industrial labourers, may be unemployed at a particular time; but if and when the existing supply is absorbed it takes a considerable time to increase the supply further. This is a point of importance only when there is a sudden and a large demand for highly skilled or highly qualified labour for a sudden emergency like a war. It takes a long to produce generals, admirals, pilots, organizers, scientists, artisans and highly specialised industrial workers. Consequently, it takes a pretty long time to bring about an adjustment between the demand for and the supply of labour of this type. During the period of mal adjustment or non-adjustment the existing supply earns a sort of *quasi-rent*. The present war has caused a sudden scarcity of labour in various fields,

(ii) It has been very rightly said that of all commodities labour is very difficult to move. This is because of the general unwillingness of labourers to go from known and familiar surroundings to unknown and unfamiliar ones. When labour is thus not quite willing to move from one place to another place, it is called immobile. In India, labour is still very immobile. There are great differences of language, customs and habits, as between one part of the country and another. For this reason, labour does not ordinarily move from one Province to another and even as between one District and another District. The caste system is another hindrance in the free movement of population between different places and occupations. This renders labour less efficient and less enterprising, with the result that its earning power diminishes and the standard of living is pressed down.

Points of resemblance between labour and other commodities.

So far we have discussed certain peculiarities of labour which distinguish it from other commodities. There are, however, several important points of resemblance also. As Ricardo rightly said long ago "Labour, like all other things, which are purchased and sold, and which may be increased or diminished in quantity, has its natural and its market price." Labour, accordingly, comes under the general law of value as discussed above.

Wages represent the price that is paid for the service of a labourer. In modern times of money economy, this price is paid in the form of money, but in India, especially in villages, they are paid some times entirely in the form of goods, other than money, while sometimes both in money and other commodities. The wages, for example, of a day labourer in a village of the U.P. were 3 annas per day and a big loaf of bread before the present war. The remuneration that is given in return for the

services of workers, like barbers, sweepers, carders, potters and others of the same class, is still in the form of agricultural produce after the harvest has been collected. In towns and cities, however, wages are paid in the form of money

There are slight differences in meanings attached to the terms wages, pay and salary. Wages are usually reckoned either by the day or by the week, pay is calculated on a monthly basis; while salary is calculated on an yearly basis. The mode of payment and the method of calculation have also a bearing upon the prestige and position of a labourer. The payment that is made to industrial or agricultural labourers is usually called wages; that which is paid to intellectual worker like clerks, teachers and Government officials in various departments is called pay; while that which is made to high government dignitaries is called salary.

Nominal and Real Wages Wages—and we now use the term in its widest sense as a remuneration for labour—may either be nominal or real. By nominal wages is meant the amount of money that is paid to a labourer in return for his work. Thus the nominal wages of a domestic servant mean the amount of money, say Rs 5 or Rs 10 that is paid to him every month. But every one knows that this money is not the only thing that he gets in return for his services. In addition to it, he gets fooding, clothing and quite a decent house to live in which he could never afford by his own independent means, tips of money now and then from his master and his guests, short or long trips of journey to enjoy and so on. If we take into consideration all the other advantages and comforts, and add them to his nominal wages, we form an idea of his real wages. Nominal wages have a direct reference to wealth, real wages to welfare. There is no doubt that welfare is of much greater importance than wealth. Consequently real wages form a more important and more interesting topic of study than nominal wages.

Factors affecting Real Wages The following factors should be kept in mind in order to form a correct idea about the real wages of a worker.

(i) **Purchasing Power of Money** At certain places, commodities can be had cheaper than at others. Living in Bombay is dearer than in Meerut; and it is dearer in Meerut than in a small town or village. This means that a definite amount of money can get in exchange more at one place than at another. Under these circumstances, it may not be really advantageous for a person to go to a place where living is dearer, unless he gets wages enough to more than counter-balance the effect of more costly living. If a person getting, say, Rs 100 per month in a place like Meerut, is offered Rs 120 per month in a place like Bombay, he should not accept the offer on money consideration.

alone; because at Bombay he will not be able to get as many conveniences and comforts for Rs 120 as he can get in a place like Meerut for Rs. 100. It is possible that a few of his wants may be satisfied more cheaply in Bombay than in Meerut, but the necessities of life, like fooding and house room are very costly there than at places like Meerut. It is also difficult to get a servant and set up a house except at a considerable expense.

The purchasing power of money is sometimes seriously affected by inflation. During the present war, for example, and especially during the years 1943 and 1944 prices of all commodities and services have gone up, and at the same time paper money has become vastly greater than what it was before the outbreak of the war. Prices of commodities have become three times as much and in some cases even higher than before. Under these circumstances if wages of a particular class of labourers become even twice as much as they were before, the labourers' real wages will still be lower; because while the general prices of commodities have gone up 300 p.c wages have increased by only 200 p.c. We should not, therefore, lose sight of this fact when we sometimes lightly say that labourers in general are very well off because their wages have also gone up. We should also remember that wages always lag behind prices.

(ii) **Nature of the Work.** Some duties are pleasant, while others are not so. Some occupations are regarded as safe, while others are dangerous. Some work is carried on in healthy surroundings, while some in unhygienic and insanitary places. In some establishments active work is carried on for longer period, causing great strain, than in others. Some trades and professions carry a sort of social prestige, while others are not very much liked by society. All these considerations have to be kept in mind in determining real wages, meaning thereby real welfare.

(iii) **Regularity of Employment.** A permanent employment, even though it carries a smaller money income is preferable to a temporary employment which may offer a higher monetary reward. Employment which are only seasonal or are affected by wind and weather may not be, on the whole, as profitable as those which are regular. When construction work is going on any where, and there is a heavy downpour of rains the work is stopped and labourers do not get wages for the day, or for as many days as rains last. A coolie gets in a few minutes one anna. If the employment were regular, his monthly income might be any thing between Rs. 120 and Rs 200; but the employment is not regular and certain. His monthly earnings do not exceed Rs. 20 or Rs 30.

(iv) **Preliminary Expenses.** Some trades and occupations require a considerable amount of preparation and expense before a person can join them. There are others which require very

little of either. Consequently, the money income earned should be judged with reference to the preliminary effort and expense already incurred. It takes a long time to become a graduate, and fairly heavy expenses have to be incurred for the purpose. So, if a certain graduate gets a post of Rs 40 per month while a matriculate gets one of Rs 20 per month, the real wages of the graduate employee are really very small as compared to that of the matriculate, although the nominal income of the one is twice as much as that of the other.

(v) **Trade Expenses** In the course of prosecuting one's trade or occupation certain amount of expenses are necessary. These are called trade expenses. They should be deducted from the money income, before real wages can be correctly calculated. A vakil, for example, has to keep a clerk and maintain an office, also, a conveyance, if possible. He has also in addition to keep a room in the bar, and has to incur other expenses in this connection, like membership fee of the Bar Association etc. All these expenses should be deducted from his money income.

(vi) **Other Concessions** Certain jobs carry with them a number of concessions. The Principal of a College, for example, gets in addition to his pay, a free bungalow. Government servants get a right to pensions, and many others get advantages of the provident fund. Railway employees get travelling concessions and some other advantages. It is necessary to take into consideration all these points before estimating the real wages of any employee. Illegal earnings or bribes should not be included in this discussion, although they exercise a great influence with many people in the choice of their occupation.

(vii) **Supplementary Earnings.** Some times it is possible for an employee to supplement his earnings in certain other ways, which are recognised as bonafide by his department. A professor, for example, can accept examinerships and earn an extra amount every year. He may write a book on a subject and if it is liked by people, may increase his earnings. A Civil Surgeon is allowed private practice and is moreover permitted to grant medical certificates on receipt of fees.

(viii) **Employment of Family Members** This is a very great advantage to industrial and agricultural labourers. It is possible, sometimes, for their wives and grown up boys and girls to get employment, either in the same industry or in subsidiary ones, in the same locality. This helps them a great deal and they accept service in a place and in an industry which makes it possible for other members of their families to earn something, even though their own wage might not be high.

(ix) **Future Prospects.** If a certain trade, occupation or profession, offers adequate opportunities for continuous rise, it is

preferred to that which does not offer good future prospects, even though the nominal wages offered in the latter may be higher than those in the former.

Time Wages. Wages that are paid by the day, by the week or by any other period of time, are called time wages. The most popular method of paying wages in modern times is by the time. This system requires a great deal of supervision of the employees on the part of the employers. They have to see that the workers do not remain idle during the fixed hours of work and that the quality of their out-turn comes up to a certain standard. The second point is now losing its importance, as the quality of out-turn of any product, especially in manufacturing industries, does not depend so much upon the skill of the individual worker as upon the character and quality of the machine. Intellectual labour is usually paid by the time.

Efficiency Wages Sometimes, however, it is considered more convenient to employ a worker not on the basis of time, but on the basis of a unit of work. Wages are fixed not with reference to time but with reference to the amount of work done by the worker. If his out-turn is greater than that of another, he will be paid more. Under this system, a labourer who is more efficient can earn a greater amount than the other who is not so efficient. This system of payment is now losing its importance in industrial countries, where the amount of work turned out by a labourer does not depend so much upon himself as upon the machine and the general organization of the business. Piece wages are also sometimes called efficiency wages.

Theories of Wages—Different theories have been propounded from time to time to explain how wages are determined. As a matter of fact, the theory of wages is only a special application of the general theory of value as applied to labour. Labour has no doubt, certain peculiarities which distinguish it from other commodities; but with all that, it has important points in common with other commodities. Before explaining the modern theory of wages, it will not be without interest to know something of the earlier theories advanced at different times.

Subsistence Theory of Wages—One was the subsistence theory, also sometimes called the "iron law of wages." It maintained that wages could not remain much above or below the amount necessary for the bare subsistence of the labourer and his family. This subsistence was to be the very least. If at any time wages increased above this level, it was thought that labourers, finding themselves in a better economic position, would marry and multiply in larger numbers than before. This would result in their increase, and so by increased competition among themselves they would press down the level of wages to its former level. On the other hand, if wages went below the subsistence level, starvation and misery would be caused among labourers and the number

of marriages would decrease. This would result eventually in a shortage in the supply of labour, and a consequent rise in their wages to the old level.

This theory is not applicable to modern industrial countries of the West, and is also incomplete, as it does not take into consideration the demand side of labour and its productivity or efficiency. This theory, together with the Malthusian doctrine of population and the Ricardian theory of rent, presents a very dark picture, indeed, of the future of society."

Wages Fund Theory—This theory of wages was developed by Mill. It is a definite improvement over the subsistence theory, as it takes into account not only the supply side but also the demand side. It says that wages are determined by two factors. Firstly the amount of capital which is set apart by industrialists, not necessarily in a bank but only in their imagination, for the employment of labourers. This amount of capital, in the aggregate, is the wages fund. Secondly, the number of labourers that seek employment in different industries of the country. Wages depend upon the relation between these two factors, of which, one, labourers, is denominator, and the other, wages fund, is the numerator. Wages can increase either when the numerator increases or when the denominator decreases. 'Wages fund' Mill said, 'can be increased by saving, which is not under the control of the labourers.' So, if they want to improve their position, they should reduce their number and only then can they hope for an increase in their wages.

This theory, although containing a large element of truth, left many points unexplained, and made certain wrong assumptions. At the outset, it assumed that there was at any time a fixed amount of capital kept apart for paying wages. This is an unwarranted assumption. In the first place, there is nothing like a Wage Fund. Even if it is in the imagination of industrialists, it is never a fixed or even a definite quantity. It can increase or decrease according as there is a greater or a lesser demand for it.

The theory also did not allow for any increase in the wages of labourers if their productivity or efficiency increased. This was a great flaw in it. It conveyed the impression that wages in one trade could only increase at the expense of wages in another trade, or at the expense of profits of the capitalists. This was not correct. As a matter of fact, it often happens that if wages in one trade increase, they also increase in other trades, as labourers with greater money resources would like to spend it in purchasing other commodities and services which would result in an increase in their demand and ultimately in pushing up prices of such commodities and, in consequence, the wages of those who produce them. Higher wages earned on account of increased efficiency do not lower profits, but increase them, as is evident

from the latest experience of Henry Ford in his own great motor works. The theory does not explain why different labourers are paid differently in diverse trades and industries.

On all these grounds, the theory was criticised from all quarters. Mill began to feel uncomfortable. At this stage, his friend, Thornton, wrote to him a letter in which he asked him how his theory explained a rise in the wages of labourers by the action of trade unions? This letter acted as the traditional last straw on the camel's back. Mill yielded too much to his critics and withdrew his theory in its entirety!

The Marginal Productivity Theory of Wages The marginal productivity theory of wages is an extension of the utility theory of value as it was developed at one and the same time in Austria, France and England. It says that wages are determined with reference to the amount of net product contributed by a labourer whom the industrialist is only just willing to employ. We have seen in the discussion of the law of substitution that an organizer is always engaged in the effort to bring about and maintain an ideal combination of the various factors of production in his industry. This ideal combination means that he does not invest more resources than absolutely necessary in any of the four factors of production, with the result that in the last stages of his employment of any of the four factors, the productivity of each becomes almost equal. It is this marginal productivity of each factor, in this case labour, that guides an organizer in deciding upon the rate of wages that he would be willing to pay the labourer. Consequently, if the labourer develops efficiency and becomes more productive than what he was before, the organizer would not mind increasing his wages, because his net addition to the industry would also become greater than before.

We see, then, that the marginal productivity theory goes to the other extreme and makes wages depend only on demand, and does not give any consideration to the supply side. The objections raised against the notion of marginal utility. It assumes that if a labourer does not get wages according to his productivity, he will go elsewhere and demand higher wages. This is difficult as labour is not so mobile and easy to move as is supposed in this theory. It also endows the organizer with more than human qualities. He has, no doubt, a more or less accurate notion as regards the marginal productivity of a labourer, or better still, of a batch of labourers, in relation to or in conjunction with the other factors of production; but how does the labourer know any thing about it? He has no knowledge of his own productivity and, according to this theory, there is nothing else to guide him in formulating his demand. Supposing, for example, that the organizer knows that the marginal productivity of labour is such that each labourer can be paid,

say, fifty rupees per month. That is to say, the net contribution of even a marginal batch of labourers is not less than Rs 50 per labourer. So he calculates in his mind that he can pay Rs. 40 or 45 or even Rs 50 to each labourer. Why should he not pay Rs. 30 or Rs 25 only if he finds that labourers, not knowing anything, and not having any other alternative means of employment, are prepared to accept Rs 25 per month? If they accept the offer, what will have determined the rate of wages of this labour? Certainly, not their marginal productivity. This qualified them for Rs. 50 per month, but they got only Rs 30 or Rs 25.

It should also be kept in mind that it is not easy in practice even for the most experienced organizer to form a correct notion of the marginal productivity of labour, or, for the matter of that, of any other factor of production. At the most, he can form only a very rough idea of the marginal productivity of this or that factor of production. We should also remember that wages are determined, and have to be paid, much in advance of the actual sale of the commodity produced which alone can help him in forming even a rough idea regarding the marginal productivities of various factors of production, including labourer.

Demand and Supply Theory of Wages. This is an attempt to combine marginal productivity theory and the minimum subsistence theory (with a generous interpretation of minimum subsistence). It is pointed out by the exponents of this theory that wages are determined, just as value is determined, by the interaction of the forces of demand and supply. On the demand side, that is to say, on the part of the employer, wages are determined with reference to the marginal productivity of labour; while, on the supply side, they are determined with reference to the standard of living of the labourers concerned, especially of that batch of marginal labourers who by its acceptance of the job brings about an equilibrium between demand and supply. An employer is prepared to employ 500 labourers at the rate of Rs 30 per month. He knows that the productivity of the first few batches of labourers will really be much more than Rs. 30 per month; but even that of the last batch will not be less than Rs 30 per month. So keeping in view the requirements of his establishment he is prepared to employ 500 labourers on Rs. 30 per month per labourer. There is thus a demand for 500 labourers at this rate.

Now in response to this demand, the supply of labour may be more or less or just equal to it. If the supply is more, the employer will at once reduce his offer and will take advantage of the excessive supply. If it is less, he will have to recast the list and revise his minimum offer. If it is just equal, the bargain will be struck on the terms offered. If the number of those seeking employment is large, many will come forward to accept

the offer forgetting for the time being their minimum requirements or their standard of living. Labour is perishable one day out of employment means a debt of so much. This consideration is uppermost in the mind of a labourer. If he is a member of a Trade Union, he need not lower his demand. If he remains out of employment for not agreeing to accept a low offer his union will give him a dole out of the common fund created for this purpose. But there are not many labourers who are members of trade-unions. And even the funds of these trade unions are not in-exhaustible. In India where trade-unionism has not yet developed, the labourers are left only to their own unaided resources.

If the number of those out of employment is not large, fewer will come forward to accept the offer of Rs. 30 per month made by the employer. This will also be the result if the labourers are well organised and are backed up by their unions, or have some savings of their own to fall back upon or have made up their minds not to let their standard go down by accepting this offer, under such conditions the requisite number does not turn up on the terms offered. If not less than 500 have to be employed by the employer, he will have to raise his offer. But if the requisite number turns up in time, equilibrium will have been reached that is to say, 500 labourers demanded on Rs. 30 per month and 500 labourers ready to work on this rate.

So we find that while on the one hand the employer is guided in his offer mainly by the marginal productivity of the labourers, the worker is influenced in his acceptance or rejection of the offer by his own needs and by his own *balking* or *staying* power. Just as an employer will at once take advantage of an excessive supply of labour and regardless of his estimation of the marginal productivity of the labourers will reduce his offer, in the same way the labourers take advantage of a sudden increase in the demand for their labour and irrespective of their own minimum needs, will begin to demand a higher wage for no other reason than that the demand has become brisk.

This then is the demand and supply theory of wages. It tries to bring together the demand and the supply points of view. It assumes that, if at any time, there is an increase in the demand for labour, without a corresponding increase in its supply, the employers will offer a higher wage owing to the increased productivity, at that time, due to an increased demand. Under the impetus of this increase in wages, either some labourers from other trades will join this industry, or new recruits will, after qualifying themselves, increase the number of existing labourers, thus again bringing their wages to the former level and restoring the old equilibrium. During short periods, therefore, wages will be governed by forces of demand while during long periods the forces of supply and the standard of living will have a determining influence,

Modern View on Wages. The demand and supply theory of wages is the current theory at present, and may be called the modern theory of wages, but it is subjected to the same criticisms as the modern theory of value. The greatest criticism in both cases is levelled against the notion of marginal demand prices and marginal supply price. It is pointed out that the supply of labour, as represented by the increase of population, is not controlled so much by economic considerations as by social, political and religious ones. The demand for labour is undoubtedly controlled by economic considerations, but the notion of marginal productivity is regarded as purely a theoretical one.

Modern economists have subjected different theories, both of the past and the present, to a searching criticism. They are taking realistic view of the problem, and pure abstractions or unreal assumptions do not appeal to them. The marginal productivity idea has, perhaps, outlived its great usefulness. So seems to be the fate of all marginal notions. People now want a more practical and realistic treatment of problems. The latest contribution to the theory of wages has been made by Hobson, who says that wages are the result of a social conflict between the organizer and the labourer. Wages are high or low in proportion to the strength of organisations of these two classes, that of the employers and that of the employees.

TRADE UNIONS.

While discussing the peculiarities of labour it was pointed out that labour was perishable. A worker is at a disadvantage as compared to organised and powerful employers in the matter of bargaining for wages. In order to minimise this handicap, and to protect his interests in other respects, trade unions were formed. The essential feature of trade unionism is the substitution of collective for individual bargaining.

A trade union has been defined as a continuous association of wage earners for the purpose of maintaining or improving the conditions of their employment. Trade unionism, therefore, has both a static and a dynamic aspect. It consolidates the advantages that it has secured, and after doing that, or side by side with that, it tries to secure still further advantages. It may be said, therefore, to have both a defensive and an offensive programme, for maintaining or improving labour standards. But it is something more than this. It is increasingly a constructive agency, having as its object the moulding of world conditions according to labour ideals. The method that it adopts is, at least in Great Britain, more evolutionary than revolutionary. Within a little more than a century, the trade union movement has become a very important part of the machinery of industrial life. There was a time, when, on account of certain repressive laws, trade unions existed only as secret societies, but now they

have secured universal recognition from government employers and the public.

In Britain. There was a time when according to law, as it prevailed in England at the time, a combination of workmen was illegal. Any body, who was a member of such an association, could be punished by fine or imprisonment. From the time of Edward I to the end of the first quarter of the 19th century, numerous measures were designed against labour organisation. During the 18th century, the Industrial Revolution in England brought about important changes in the industrial world, which were of a far reaching character. The status of labourers was reduced considerably, and they became absolutely dependent for their living upon employers. They were disorganised, while the employers were powerful and organised. On account of this they suffered great hardships during this period.

Craft Guilds and Trade Unions The difference between the status of a workman and an employer, after the Industrial Revolution, became very great as compared to that between an apprentice and a master craftsman in a craft guild economy. Efforts are sometimes made to establish a connection between the trade union movement of the 19th and 20th centuries and the craft guilds of the Mediaeval period; but, except in very minor details, the two are not similar. A member of a craft guild could become a journeyman after a certain period; while a journeyman could become a master craftsman after fulfilling certain conditions. This sort of promotion is not possible under modern conditions. Moreover, the causes that brought about a rise of modern trade unionism, were vastly different from those that gave rise to labour organisation under the craft guilds.

Progress of the movement In spite of the combination Laws that prohibited all combination among workmen with the object of obtaining an advance in wages or of lessening the hours of work, secret trade societies began to grow. However, after sometime, the Combination Laws were repealed in 1825, and from that time onwards there was a rapid multiplication and expansion of trade unions and along with that an outburst of strikes also, in which workmen were mostly unsuccessful. From 1845 there was a change in the policy of trade unions, which now consisted in amalgamating local trade clubs and to form societies of a national character but confined only to a single trade. Members were required to pay high contributions, and there were provisions of both friendly as well as trade benefits. The Amalgamated Society of Engineers formed in 1851 was the most important example of the new type of unions. The Trade Union Acts of 1871 and 1876 made certain points clear and they govern the legal position of English trade unions ever at the present day. At the beginning of the 20th century the trade union movement could be said to have been fairly well established in England.

There were now national organisations of considerable size, and trade unions for practically every type of worker. Between 1900 and 1913 the membership of trade unions was more than doubled. In 1900 it was 2 millions, in 1913 it was more than 4 millions. From the period immediately prior to the outbreak of the Great War, up to the present time, the chief features of British Trade Unionism have been the following —

- 1 The improved organisation and extension of trade unionism amongst "general workers" and women, in agriculture and railways, and in public services and professions.

2. The increasing importance of a trade union in the community, and in the administration of legislation.

- 3 The consolidation of trade union forces through the process of amalgamation and federation.

- 4 The growing authority of the executive body of Trade Union Congress.

5. The General Strike and the Trade Union and Trade Dispute Act of 1927.

Trade union membership increased, especially among women; the highest degree of organisation among them being in the cotton industry, where about 62 per cent of women workers are in the unions. The total membership increased from more than 4 millions in 1913, to more than 5 millions in 1926. During and after the period of trade depression, the number of membership fell, being about 4 millions and a half in 1939. It was highest in 1920, when it was more than 8 millions. It was partly due to the influence of higher wages which invariably resulted in enlarged trade union membership.

Consolidation of trade unions The movement towards consolidation of trade union forces has been a marked feature in modern times. It was due mainly to the influence of syndicalism, which aims at the government of the country through trade unions. The triple industrial alliance was formed in 1914, between Miners' Federation of Great Britain, the Transport Workers' Federation and the National Union of Railwaymen. Federation in many cases proved to be a substitute for amalgamation. The reduction which has taken place in recent times in the numbers of unions is explicable, in some measure, to amalgamations that have taken place. The present policy of English trade unions is represented by the Trade Union Congress which has accepted the policy of public ownership, combined with the association of workers in the government and control of industry.

Trade unions and wages The most important function of a trade union, both from the historical and the practical points of view, is to bring about an increase in the wages of labourers, so

that their economic position may improve in individual bargaining. A labourer is at a very great disadvantage as compared to an employer. For this reason collective bargaining was substituted for individual bargaining. This could be possible only through the development of trade unionism. The question arises, to what extent can trade unions bring about increase in wages. The answer is, only to the extent that the employers do not give just wages to labourers on account of their lack of organisation, and due to the perishable nature of labour. The trade unions may sometimes succeed in securing enhancement in the wages of their members by simply refusing to allow them to work. But by just wages we mean those that are determined with reference to the productivity of labour. It is indeed very difficult to find out what is a just wage, but if it cannot be determined accurately, it can be rightly estimated after sometime, and then changes can be introduced accordingly.

When, during a period of rising prices, employers get increased profits, and refuse to increase wages of their labourers, only a little effort on the part of trade unions in the form of a well concerted demand, or a slight gesture towards a strike, will easily induce employers to grant this increase. In the first place, they will feel, at least in their hearts, that the demand is just, and they can afford to enhance their wages. In the second place, it is only during a period of rising prices that employers hope to make large profits. If at this period a strike is declared, their profits are considerably reduced and they lose a great opportunity. This, then is the psychological moment for a demand for an increase in wages to be made by labourers or by trade unions.

If the period is not that of rising prices, and conditions are normal, but it is discovered that the rate of wages paid to labourers is neither just, nor does it satisfy the minimum requirements of a fair standard of living of the labourers, a demand for enhancement may be made, and if ably put forward and cleverly persisted in, there is no reason why the employers should not find themselves compelled by public opinion and a sense of justice and fair play to grant the increment. But if conditions in trade and industry are depressed, and manufacturers are faced with competition from all sides, and the period is that of falling prices, no amount of organisation on the part of labourers or their associations will help them to get any increment, or to resist a reduction in wages.

If some concessions are extracted by sheer force of pressure, it would ultimately result in a loss to the employers who may then find themselves compelled to give up production. Under such circumstances it will be a suicidal policy on the part of labour organisations to press their claims which are really untenable.

Trade unions and the number of hours of work. Another great and important demand of trade unions has been regarding

the curtailment in the number of hours of work of the labourers. The number of successful strikes declared with the object of bringing about a reduction in working hours has not been large. Employers cannot foresee the effect of a reduction in working hours, although they can very easily calculate the effect of an increase in wages. But in recent times the demand for a reduction in working hours has become more insistent. Owing to the spread of education among the labouring classes of England and other parts of the world, activities other than economic, and of a purely personal nature, have begun to claim greater attention of the labourers. For example they now want time to read papers and other books; to attend political meetings and political clubs; also leisure for the recoupment of their physical and mental powers. In addition to this, there is also a growing belief among psychologists and scientists, based upon definite experiments that the output of a labourer does not necessarily increase with an increase in his working hours; and conversely, does not necessarily decrease with a reduction in hours. His maximum efficiency is reached, let us suppose, when he has worked for 8 hours in a day. If he is asked to work for another hour, the cost of this work to him in the form of effort will be much greater than the return to the employer in the form of his output.

So from the national point of view curtailment in the number of hours of work is certainly advantageous. Books have been published on the subject of relation between fatigue and output of working men, in different countries of the world. After very careful and detailed examination of every factor, the definite inference has been that it is not advantageous even to the employer to make his labourer work for longer hours. Many labourers would not believe that they could produce more in 8 hours than in 9. But experiments made in Germany, England and America, have proved beyond any possibility of doubt that a continuance of work after the maximum point of efficiency has been reached, does not result in any good either to the labourer or to the employer. The number of accidents becomes larger, and costly fixed capital begins to be used carelessly, as the labourer is not a complete master of himself on account of overstrain. So, while on the one hand a curtailment of working hours gives a labourer much more leisure for other activities and lessens physical strain, it also benefits the employer, in as much as losses and expenses are reduced, and the output is not reduced but is actually increased.

Some unsatisfactory features of trade unionism 1 Labourers become hostile to all improvements in the technique of production which tend to displace labour. Any step towards rationalisation is sometimes thoughtlessly apposed by labourers. Consequently, there is sometimes a tendency for strikes to be declared for no other reason than that the employer had to dispense with

the services of a number of labourers, on account of the substitution of a better machine. One cannot accuse the labourers for this hostility, as it is caused by the instinct of self preservation, but from the point of view of the employer, and perhaps, of industrial production also, it is not justifiable

2. Some times labourers do not put up the best in their work, in the hope that if their output is less, there will be more work for others to do, and so its slackness on their part may create employment for others. This attitude does not appear to be justified.

3 Sometimes, in order to raise their wages, and bring about an improvement in their conditions of work, members of certain trade unions create an artificial capacity in their numbers, by restricting entry of outsiders into their union. This is also open to grave objection. If it is attempted to improve labour conditions by such methods, public sympathy will diminish to a great extent, and there will be a grave danger of split even among labourers themselves

4 The demand for a standard minimum wage, though satisfactory from the point of view of those labourers who are not very efficient, is not satisfactory to those labourers who are very efficient, and can hope to get high wages on the score of their efficiency and productivity. The trade union officials recognise the force of this argument, but they find it extremely difficult to make any distinction between their demand for wages of individual workmen. For this reason, the interests of the few have to be sacrificed for the sake of the interests of the many.

Beneficial results of trade unionism 1. Trade unions create a bond of sympathy and fellow feeling among all members belonging to a particular union. They understand the importance of standing together and realise the advantages of discipline and loyalty to their leaders.

2. By insisting on a standard minimum wage for a particular class of labourers the standard of living is raised thereby, thus increasing ultimately the productivity of labour.

3 Those employers who usually depend for their success upon the payment of very low wages to their needy employees, are in this way driven out from the field of production

4. The demand for a standard minimum wage, when accepted, sets the employers of labour to think furiously to devise measures for substituting machines for labour. Under this pressure machines are, sooner or later, invented, with the result that a number of labourers are displaced, although those that remain in employment continue to get the same wages as before. So, from one point of view the demand for a national minimum wage proves inimical to the interests of the labourers in the long run, and brings about rationalisation of industry

A Brief Survey of Trade Unions in India Trade Unions of a sort were not unknown in ancient India; but after changes in the methods of production brought about by contact with western civilisation, trade unions of the western variety began to be started in the country. They took shape on western lines with some necessary modifications in order to meet Indian requirements and conditions. Trade Unions were organised, first in Madras in 1918, with the help of Mr Wadia, and in the Punjab under the guidance of L. Lajpat Rai. The Railway Union in the Punjab was one of the first few unions to come into existence. It also came before the public eye under the leadership of Mr Miller. From Madras, the Trade Union Movement spread to Bombay, which is now its real home. During the war, on account of a general awakening in the masses, combined with the general rise in prices of commodities, signs of unrest became visible among labourers. A number of labour organisations were started, but they were only of a temporary character, and were dissolved as soon as their immediate purpose was served. They were more or less strike committees, with very little permanent strength of memberships or leadership behind them. Since 1920, however, trade unions, began to attract public notice, on account of a large number of strikes near about that period.

In England, the number of trade unions shows an upward tendency when conditions are favourable for labourers; while during the period of depression, their number begins to decline. In India, however, this does not seem to be the case. In 1923 the movement received a set back owing to, it is said, some improvement in economic condition of the workers. So, trade unions in India have a very short history. It was only after the last Great War, with the world wide labour movement extended to India also, that Indian labourers realised for the first time, the necessity and importance of organisation with a view to improve their conditions regarding wages and working hours.

Legal Position. As in England, trade unions in India also were, in the beginning, threatened with penalties, under the English Common Law. But in 1921, the Legislative Assembly adopted a resolution for passing legislation for the protection of trade unions in India. In 1926 a Trade Union Act was passed; its provisions applying only to those unions which were registered under it. This registration lays the unions under certain obligations, the most important of which are furnishing of audited accounts, and inclusion in the executive committee of the unions of a majority of the workers. But this registration is also of very great benefit, in as much as it grants immunity to such unions and their members from certain legal proceedings. The result has been that the number of registered unions has begun to increase. It was nearly 700 in 1939, and the number of members more than 500,000. The registered trade unions constitute a

minority of the total number of unions in the country but the very active labour organisations have already been registered.

Difficulties of Trade Union Movement in India. There are a number of difficulties peculiar in India in the matter of the development of trade union movement. In the first place, the labour population in the country is not of a permanent character. No doubt, they earn their livelihood by working in factories; but as soon as they have any pretext or occasion to go to their villages, they do not hesitate to do so. This changing character of Indian labour is both an advantage and a drawback. It is a drawback because it is not possible under these conditions to organise labour on a permanent footing, nor can those workers who have finally decided to remain as industrial workers throughout their lives, take any active or abiding interest in the development or working of the movement. It is an advantage, in as much as, when strikes are declared and there is a likelihood of their being prolonged for sometime, the labourers go back to their village homes where they remain as long as the strike lasts. If the Indian labourers had no village homes, it would not be possible for any strike to create any impression, for the simple reason that the labourers would not be able to pull on even for a short time, in the absence of any reserve of their own and any strike fund with their unions.

In the second place, the labour population of industrial cities like Bombay, Calcutta etc is composed of men who speak different languages, and have different customs and habits. This cannot be helped as long as India remains as big as it is at present, and is populated by people speaking different languages, and following different customs. Very often it is found that there is nothing in common between one labourer and another, except that both work in the same industry. The common bond between industrial labourers is therefore very slender. In the third place, on account of their illiteracy, and lack of general training. Indian labourers do not like to bind themselves to the rigours of discipline which an organised union demands. The poor labourers find it extremely hard to pay periodical contributions, however small they may be. They fall in arrears, and their names are struck off after some time.

The Indian labourer has very little education, and so has not many ideas of his own. He can be easily led away by those who want to make him a pawn in their own games. The affairs of the trade unions cannot be carried on by labourers themselves, and for these purposes they have to secure the services of outsiders. Their leaders are mostly from the outside group and do not belong to their own class.

NEED FOR DEVELOPMENT.

With the handicaps mentioned above, it may be said, perhaps, that the development of Trade Unions in India is not possible;

and that the energy spent over its organisation and development will be wasted. But there is no cause for pessimism. It is not only the trade union movement which is handicapped by a number of causes, but every movement of a beneficial character is hemmed in on all sides by similar difficulties. The co-operative movement, for example, though it has a great potentiality for good, has not been able to make much headway in the country, inspite of the very great application of energy and expenditure of large sums of money by the Government of India. There is, however, no reason why further attempts should be given up. What is necessary is a re-adjustment of plans, and a change of methods or tactics that may be found necessary. Need for education is certainly very great, and it can act as a panacea for most of the evils from which India suffers now-a-days.

The recognition of a union is very important from the point of view of the union itself. In this connection the Labour Commissioner writes—"In our view recognition should mean that the employer recognised the right of the union to negotiate with him in respect of matters affecting either the common or the individual interest of its members". Apparently, there does not appear to be any reason why a trade union which has been registered under the Trade Unions Act should not also be registered by the employers. Recognition has frequently been refused, both by Government departments and by private employers, on insufficient grounds. It is sometimes pointed out that the union embraces only a minority of the members concerned. Sometimes, it is said that another union has already been in existence. Sometimes it is not recognised because it has included some outsiders in its executive committee.

As a matter of fact, it is very difficult for labour movement in India to make any great progress unless it is guided by outsiders, which term means those who are not themselves labourers. Even in England and other European countries, labour movement has always received guidance of those who were not themselves labourers, but belonged to the middle or even upper classes. Robert Owen in England, Charles Fourier in France, Ferdinand Laissale in Germany, Prince Kropatkin in Russia and a host of others, did not belong to the labour class, and yet they were highly respected and accredited leaders of the labour movement.

The 15th session of the Indian Trade Union Congress was held in Bombay on the 17th of May, 1936. Unfortunately on a previous occasion a split had occurred between the right and the left wing of the Trade Union Congress. This was at Nagpur in 1929, on the question of affiliation of the Congress with the Russian communist organisation in the Far East, and on some

other grounds. Twenty four unions led by Diwan Chaman Lal, Mr. N. M. Joshi, Mr. V. V. Giri and a few others seceded from the congress, and set up a separate federation under the name of the Indian Trade Union Federation. Even since then, several attempts have been made to bring together the two wings of the Trade Union movement, but without any success. In the 15th session a Resolution was passed accepting the conditions laid down by Mr. Giri for union between the Trade Union Congress and the Indian Trade Union Federation. This was done in April 1938 in a joint session of the two bodies. The Indian Trade Union Federation was absorbed into the Trade Union Congress at the 1940 session of the Congress.

The All-India Trade Union Congress had in 1940 a total number of 191 Unions with a membership of over 3½ lakhs affiliated to it. The percentage of female workers is very small, only about 4 p.c. The representation given to labour in the Provincial Legislative Assemblies under the Government of India Act (1935) through Special Constituencies comprising registered Trade Unions has helped registration of new Unions and has conferred some prestige value upon membership of a registered union.

As a result of the present War, and the part Soviet Russia has so far played in it and is likely to play in the future, labour outlook in this country also has become bright and it is expected that labour will play a more important and useful role in future

CHAPTER XXII

INTEREST.

Meaning and Justification Interest is the amount of money paid by the user of capital to its owner, reference to a fixed unit of time. In modern times capital borrowed and lent usually in the form of money, and interest is also paid in terms of money. It is calculated as a certain percentage on the amount lent and is usually reckoned by the year or sometimes by the month.

Interest is really as old as society itself. We find a detailed reference about it in the code of Manu, where it has not been prohibited, though usury is generally discouraged in other Hindu Shastras. Aristotle was more strict. The famous phrase, "Money is barren, it cannot breed money" is attributed to him. The prophet Mohammad was even more strict. A pious Muslim may neither pay nor receive any interest. During the Mediaeval period in Europe the attitude of the church was very strict and the business of money lending was held in disrepute. Apart from other reasons, it was perhaps due also to the fact that the Jews were engaged in money lending business in large numbers, and they did not belong to the Christian faith. On moral grounds also, charging of interest was not at all liked, as only a harassed individual, and one in great distress, approached a money-lender, who was usually a hard hearted person. Human sympathy always goes for the weak and the poor. So, usury was not countenanced by those who had a tender heart.

As time passed on new uses for money were discovered. Its importance for purposes of production began to be recognised. In England, a number of companies were registered for carrying on trade and commerce with distant parts of the world. The South Sea Company, the East India Company and other big corporations were formed on a joint stock basis, and a large amount of money, now called capitals invested in these concerns. Great changes were also taking place in the matter of extraction of minerals, manufacture of articles and the transportation of heavy goods from one place to another. Industrial and agricultural revolutions were taking place in England, which created a very great demand for money and machinery. Thus a great change had taken place in the character of money. Previously it was used for purposes of consumption only, usually by the poor, the needy or the improvident. It was certainly lent as capital but *used* as wealth. But under these changed conditions, it began to be used also as capital, that is to say for purposes of production. It was no longer the poor and

the needy who borrowed it, but the rich and the powerful, who wanted to still further increase their wealth and power. Governments of different countries also appeared on the scene in the role of large borrowers, both for productive and unproductive purposes. Whether the charging of interest was justifiable or not during the Mediaeval period, no one could raise any objection to it when high profits and large fortunes began to be made out of borrowed money.

If a man makes money out of another man's money, there is no reason why he should not pay interest to its real owner. But is it a sufficient justification for the lender to receive interest? Perhaps not. Some other justification is necessary and it is not difficult to find. Capital can be created only by saving, which means not spending one's money. Spending gives immediate pleasure, while saving holds out a promise of future pleasure. But human nature is so constituted that it prefers a present certainty to a future hope. Consequently, people are not inclined to save, unless they are offered an inducement. This inducement is interest.

The postponement of one's pleasures for the future, requires a certain amount of waiting. People are generally very impatient, and they do not like to wait; but if they are paid something as a reward for their waiting, they may agree to wait. Labour is paid for, because it is irksome; waiting also, being irksome though to a smaller extent, should be paid for. Under the inducement of interest, more people develop the habit of postponing their present pleasures in the expectation of greater gains in the future. And when this waiting can be productively used by an increasing number of people, there is no reason why interest as a reward for waiting, should not be paid to the suppliers of this important commodity.

Gross and Net Interest. In the foregoing discussion we have taken interest to mean merely a reward for waiting. There is no element of risk or any other difficulty involved in the process. A person may be quite prepared to wait for a year if instead of a hundred rupees to-day he gets Rs 103 after a year. But he may not be prepared to take any other risk whatsoever regarding his principal or interest; nor may he be prepared to countenance any difficulties or complications in his monetary dealings. He wants a return only for his waiting, and for nothing else. Accordingly, that amount of money which a person receives in return for his capital purely as a reward for waiting, and for nothing else, is called net interest. The amount of interest that a person gets on his fixed deposits in big banks, or on really first class Government securities, is net interest, and purely a reward for waiting.

But every body is not satisfied with such a small rate of increase in his capital. Human natures differ a great deal from one another. There are some who prefer a safe and sound investment, where there is no risk and no trouble, even though the rate of interest may be very small. There are others who are of a more enterprising nature. They believe that no one can ever gain if he is not prepared first to take some risk. So they are prepared to take risks and undergo some trouble if the rate of interest that they can get on their money is higher. So, if along with the irksomeness of waiting there is also some difficulty in the collection of interest and a certain amount of risk regarding the safety of both capital and interest, the rate of interest must be higher, in order to induce a person to lend his capital under such conditions. Suppose it is 5% or 6%. This is gross interest. It is a mixture of three elements, namely reward for waiting, compensation for difficulties borne in the collection of money, and insurance against risk.

The greater the amount of risk and other difficulties in the matter of realisation of the principal and interest, the higher would be the total gross interest. But it should be remembered that an increase in the latter is brought about mainly by the other two factors, namely, insurance against risk and compensation for difficulties of collection. This explains the very great difference in the rate of interest from place to place and from time to time. The last two elements in gross interest are so variable that they cause wide differences in current rates of interest. Usually when the word interest is used in every day discourse, it means gross interest; while in books on Economics, net interest is of greater importance and so by interest we usually mean net interest.

When a village money lender lends Rs. 100 to a local cultivator, and charges him interest at the rate of Rs. 2 per cent per month, it is not a reward for waiting alone. He knows, better than any body else, that he will have to follow the cultivator from place to place, and accost him hundreds of times before he succeeds in realising a part of the settled interest. He also knows that if he takes too much liberty with the cultivator, he may in desperation, even use violence against him. So he has to keep in mind, while fixing the rate of interest, all these troubles and difficulties that lie ahead. Murders of money lenders by their debtors, burning of ledgers, and looting of their houses, are not infrequent occurrences now-a-days in rural India!

FACTORS AFFECTING THE RATE OF INTEREST.

Productivity of Capital The characteristic of capital is its productivity, a fact which is evident from its definition. It aids production in numerous ways, and it is not possible to carry on

production beyond very small limits without it. Organisers have a demand for capital and other factors of production only on account of their productivities. He bargains with the capitalist, and the rate of interest is fixed after both have taken stock of the whole situation. We are not here concerned with finding out how the capitalist feels and thinks; we are just at present studying the motives of the organiser. We know that he is guided by no other consideration than that of the productivity of capital. If he thinks that its productivity is high, he will pay a higher rate of interest; but if he thinks that it is not so high as it used to be, or is likely to fall in the future, he will not offer the same rate of interest as he might have otherwise done. So, as in the case of labour an organiser forms a rough idea about the net contribution to the product of his business of a set of labourers, in the same way he tries to form a rough idea about the net addition which a certain amount of capital is likely to make to his business. This impression, more or less undefined, is somewhere in the back of his mind when he bargains with the capitalists regarding the conditions of borrowing additional capital. We conclude, therefore, that the productivity of capital and the rate of interest are directly proportional to each other. One rises or falls with the other.

Risks. While distinguishing between net and gross interest, it was pointed out that gross interest was always higher than net interest, because it contained two other elements besides net interest, one of which was insurance against risk. To the extent that there is some risk involved in a particular investment of money in a certain business, the investor would like to insure himself against it by charging a higher rate of interest. When dealing with the various kinds of shares in a joint stock company, we saw that those classes of shares which were the least risky, carried lowest rates of interest, while those that were attended with more risk carried a higher rate. We also saw that the reason why a village money lender charged a high rate of interest from a cultivator was because the latter had practically no security to offer, and so there was a great amount of risk in lending money to him. Risk and the rate of interest, therefore, go side by side. If there is a greater amount of risk in any investment, the expected rate of interest or return must also be large. The rate of interest or return must be high to induce people to undertake greater risks.

Mobility of Capital. The development of banking in modern times, and the establishment of stock exchanges in all important countries of the world, have made it quite easy for capital to be transferred from one place to another place, and from one industry to another industry. If at one place the rate of interest (net interest) is high, while at another it is low, capital will at once begin to flow from the latter to the former.

Every one would like to send his capital to a place where it can earn more. The result is that due to the increased supply at the centre where previously high rate prevailed, the rate of interest comes down; while due to the flight of capital from the centre where previously a lower rate of interest prevailed, the rate goes up. Mobility of capital, therefore, tends to equalise the rate of interest between different centres.

In the same way, if capital can move freely from one industry to another, its productivity, in different industries, tends to become the same. The stock exchange of the world helps in the mobility of the capital as between different industries. So we conclude that the effect of the mobility of capital on the rate of interest is to keep it, as far as possible, uniform between different areas and different fields of investment.

Savings. Capital is the result of saving. Saving, however, does not mean hoarding; it means proper investment. If the power, the will, and opportunities to save, increase, there is no doubt that a large amount of money and resources, which are now spent, will begin to be saved and consequently, the amount of capital will increase considerably. If with this increase in the supply of capital, the demand for it remains fairly constant, the rate of interest will show a tendency to fall. The rate of interest is lower in England than in India, because the amount of savings in England is much greater than in this country.

Theories of interest. Different theories of interest have been expounded from time to time by different economists. As with different theories of value, so with those of interest, the earlier writers took up only one aspect of the phenomenon which appeared more important to them, and they based their theory upon this one aspect alone. The productivity theory, for example, lays sole stress upon the earning capacity of capital, and regards interest as being determined by its productivity alone. This theory explains correctly enough, the demand side of capital, but that, too, only in a partial manner. It does not, for example, take into consideration the demand of those people who want money not for purposes of production, but to satisfy their immediate needs, very often of a purely unproductive nature. It does not explain what induces a spendthrift to pay a certain amount of interest. The theory neglects completely the supply side of capital, which is not less important than the demand side.

Abstinence Theory. This theory is based as completely on the supply side as the productivity theory is based on the demand side of capital. Interest, according to it is charged because those who supply it have to abstain from present pleasures and thus make a sort of sacrifice. The payment that is made to them for this sacrifice is interest, consequently, the greater the abstinence, the higher must be the rate of interest.

Serious objection is raised by socialists against this theory, especially against the use of the word abstinence. It is rightly pointed out by them that rich men and millionaires abstain from nothing in order to save capital, which is, more or less, an automatic process with them. Their incomes are so large that they cannot but save. Although the objection is telling against the word, it is not so against the theory itself, which merely gives a justification for the charging of interest. We know that in one and the same market, the price of a commodity is practically the same, irrespective of its sources. Wheat, for example, is produced from numerous plots and in different countries, where costs of production are not necessarily uniform. And yet, when it is collected together, and sold in a market, each portion of it commands the same price whether produced from a fertile plot or from a less fertile one. The same is the case with capital. Money is saved by rich men, middle class people and sometimes even by comparatively poor persons. This whole amount seeks investment, at one and the same time in a market. No distinction is possible between the money belonging to a rich man and that belonging to a poor person. Both command the same price in a market if other conditions are equal.

However, the use of the term abstinence is, really, not a happy one. It certainly does a sort of violence to one's feelings when it is intended to be conveyed that there is an element of sacrifice, every time, and every where, when capital is saved. For considerations like this, modern economists have substituted the word waiting for abstinence.

Demand and Supply theory of Interest. As in the case of value and wages, so in that of interest the demand and supply theory is an attempt to combine the productivity and waiting theories. On the demand side interest is determined with reference to the productivity of that amount of capital which must be invested in order to make the combination of various factors of production in a business ideal. The organiser has, more or less a definite idea of the net productivity of the last units of capital to be invested in his business. Keeping that in mind, he decides how far he should go in his employment of capital, as one of the several factors of production. This is his maximum, above which he will not go.

On the supply side, it may be said that the inducement to save should be such that the necessary amount of capital is forthcoming and supplied to the market. When the rate of interest is low, a smaller amount of capital will be saved; while, if it is high, a larger amount is likely to be saved. The rate of interest is, therefore, determined at that point where the amount of capital demanded is equal to that which is supplied. This brings about an equilibrium between the demand for and the supply of capital. There are some people who will continue to save, irrespective of the rate of interest. But this amount is not

sufficient to meet the total demand for capital. Under these circumstances, the rate of interest offered should be such that some other people also, who are not very anxious to save when the rate of interest is low, may begin to save and thus increase its supply. So, the marginal productivity of capital, on the one side, and the marginal cost of production measured by abstinence or waiting of those who are just induced to save, on the other, determine the rate of interest.

Modern views on Interest. In the case of value and wages, we should carefully realise the practical limitations of the notions of marginal productivity of capital and of its marginal cost of production or abstinence or waiting. We should remember that there is, in all such cases, an upper and a lower limit and that the gap between these two limits is quite pronounced. The determination of interest, as that of wages, rent, and value, is influenced by the relative bargaining power of different social groups involved in the affair. The demand and supply theory of interest, however, gives broad outlines of the phenomenon. The details should be filled in with reference to conditions prevailing at a certain time and place and under particular conditions.

Indian Rate of Interest The rate of interest in India is higher than that in England or other industrial countries of the world. Here we use the term interest in the sense of net interest. While discussing conditions of saving or of the accumulation of capital, it was mentioned that there were three conditions, namely, power to save, will to save and opportunities to save. Regarding India we had come to the conclusion that none of these conditions was adequately satisfied with the result that the amount of capital seeking investment in this country was very small as compared to that in other important countries. Naturally, if the supply of a certain commodity is very small as compared to the demand for it its price would rise. Accordingly, if the amount of capital in a country is small, due to small amount of savings or due to unwillingness of people to invest, there is no reason why the rate of interest should not be high as compared to other countries.

Looking at the demand side, we find that the demand for capital in India is very large. India is still an undeveloped and unexploited country, and for her development and exploitation large quantities of capital are necessary. Large sums of money were borrowed by the Government of India from England, for the construction of Railways and for other productive purposes. India after some time began to satisfy to some extent the demand for capital of the Government of India, but still the total demand could hardly be satisfied easily by India alone. The development of Hydro electricity and the proper utilisation of her vast resources could not be undertaken for want of capital. Elementary and compulsory education, and other necessary

reforms could not be introduced as there was no adequate amount of money for these purposes. The large savings made by people during the present war is expected to change radically this state of things

So, when there is a great scarcity regarding the supply of capital, and a high but unsatisfied demand for it, no wonder that the rate of interest become high in such a country. Money, however, is demanded not only for productive purposes, but is also wanted by people, at least in India, very largely for purposes of consumption. This is a very bad feature of the demand for capital in this country. Those who want money for productive purposes think twice, thrice, and even more often, before they agree to borrow it, at a certain rate; but those who want it for unproductive purposes, borrow recklessly, whatever the interest. The interest demanded by the money lender may be high or low, but the borrower's concern is only to borrow it anyhow and at any cost

People who have command over capital usually succeed in lending it to people who are mostly propertied men. They do not care to invest their money either in big banks, or in Government securities, or in the purchase of shares of industrial companies, which may benefit them and also their countrymen and their country. We cannot blame them for this. As long as it is possible for a capitalist to lend his money at a high rate of interest without any risk, there is no reason why he should not invest it there. If the Government wants that lending of money for purposes of production may increase, it should pass laws discouraging loans for unproductive purposes. Recent debt legislation in several provinces is a move in the right direction from this point of view. Some causes of the high rate of interest in India (i) Scarcity of capital, on account of poverty, thriftlessness, hoarding habit, and lack of opportunities for saving (ii) Absence of means of investment. In this connection it may be said that the system of banking prevalent in our country is not quite suitable to our requirements. Commercial banks in India were started on the model of banks in England, while, as a matter of fact, they ought to have been started on the model of Germany. Commercial banks are not at all in touch with rural affairs, and they cannot satisfy the needs of the agricultural population. More has been said about this aspect of banking in another connection. Hoarding habit can be attributed to some extent to the lack of opportunities for investment (iii) Money is borrowed more for purposes of consumption than for production and people have no other security to offer to the creditor except land, which is the usual form of collateral (iv) Risk is greater on account of the comparative poverty and financial backwardness of the country

divided into
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Difference in the rate of interest from one locality to another. There is a perceptible difference in the rate of interest as between a village and a town. It is not so much due to a difference between two localities, as between the residents of the two localities. Those who reside in villages, are generally agriculturists; while those who reside in towns or cities, are usually trading or commercial people. The poor agriculturists cannot offer adequate and good security to the money lender. In the second place there are practically no banking facilities in villages while there are, some times, a large number of banks or their branches in big cities and towns. In the absence of agricultural banks, it is not surprising that the rate of interest charged from the residents of villages is high. The village money lender is in the position of a monopolist, and so he charges some times a usurious rate of interest, and takes advantage of the farmers' ignorance. Also, because the land revenue demand is strictly enforced, the cultivator is ultimately compelled to go to the money lender, and accept his terms. The same is the case with the Zamindar's dues. His Karindas are, if possible, even more strict in the matter of realisation than revenue officers of the Tehsil.

Seasonal variation in the rate of interest. In an industrial and manufacturing country, the demand for money is more or less constant, except at certain times of the year when people go out on tours or pleasure trips. In an agricultural country, however, the demand for money is concentrated during those brief periods when crops are harvested. There are two crops in India, namely, Rabi and Kharif. For this reason the demand for money is greatest during the months of April and May and those of October and November. This is also the period when marriages mostly take place in India. There is, consequently, a very great demand for money during these two seasons, and the rate of interest becomes correspondingly high. This is shown by a rise in the rate of interest of the Reserve bank and, consequently, of other big banks and first class lending houses during these months. The difference in rates between one season and the other i.e. between the busy season and the slack season, is sometimes as much as 3 per cent. The system of banking in the country is not elastic. With the rate of interest so high in the market at certain times of the year, large sums of money used to remain with the Government in some of their treasuries. The Imperial Bank was, no doubt, permitted to issue paper money to the extent of 12 crores of Rupees against securities at the time of stringency, but even this measure did not prove entirely adequate for the purpose. With the establishment of the Reserve Bank, this inelasticity, and the consequent variations in the rates of interest, show signs of diminution.

CHAPTER XXIV.

PROFITS

Meaning The term profit is used in more than one sense. Some use it in the sense of remuneration for the services of the organiser, which include both management and enterprise; and also include under it the interest on the capital belonging to the organiser himself. In this sense, profit is composed of earnings of management, reward for risk and enterprise, and also interest on the capital of the organiser / This usually is the practice in England, as in that country an organiser not only manages his own business and undertakes its risks, but also invests a considerable amount of his own capital.

Marshall, however, does not include interest on the capital of the organiser, but he includes wages of management under profit, and regards it as made up of two elements, earnings of management and remuneration for risk taking. In America, however, the practice is to deduct from the net earnings of a business, not only the interest on the capital of the business man, if he has any, but also to deduct from it the earnings of his management, after making a rough guess regarding the salary which the businessman might have earned elsewhere if he had offered his services in some other business as a paid organiser. So, what is left is only remuneration for risk taking, or the reward of enterprise

The American view of profits has begun to be adopted by modern economists, as it makes a close analysis of the various component parts that go to determine the net income of a business man, and then entirely separates from it that portion which is due to the function of risk taking. But although from a theoretical and analytical point of view the American view is more satisfactory than the English view, from the practical point of view it is not applicable to conditions that prevail in countries other than America.

An American illustration In America a young and brilliant man, with good general and technical education and good connections, may borrow a large amount of capital from a capitalist, on a stipulated rate of interest, and may then appoint a paid manager to start and organise a certain business. The organiser, who gets his salary all right, sets the business going and continues to work as a general manager or organiser. He pays rent to the landlord for the use of land, or factory building, pays interest out of the earnings of the business to the capitalist from whom money has been borrowed, the young man; deducts

his own salary, and pays wages to the numerous labourers that he has employed in the business. After making all these payments, and defraying all other expenses incidental to the business, he hands over to the young man a certain amount of money which is left over after all the above payments are made. This sum of money can be reckoned as profit by the young man, who is neither a landlord nor a capitalist, nor yet an organiser or a labourer. He is only an enterpriser, or a risk-taker; and the income that he earns is only the reward for his having undertaken the risk of the business.

Profits in Joint Stock Companies. We come across the same position in the case of joint stock companies. In such companies interest that has to be paid to outside creditors, and also that which is to be calculated on the capital subscribed by ordinary shareholders, is deducted from the earnings of the company before profit is calculated. The general manager who is the organiser, or sometimes the managing director, or the managing agent, is paid his fixed salary; in the same way rent is paid to landlords and wages to labourers. After all these payments have been made or allowed for, that which still remains is proposed to be divided among ordinary shareholders as dividend or profit. The ordinary shareholders undertake the real risk of the business, but they also provide capital. So they are paid a certain rate of interest on their capital, and only then what remains of the gross profit is treated as true or net profit.

This is, then, the most scientific view of profit. It is only the reward for undertaking the risk of business. Payments on other counts may be received by the same individual, and so his net income may go on increasing, but this net income should not be called profit. Obviously, it is composed of several elements, one of which is certainly profit.

The net income of, say, a cloth merchant in India is composed of several elements. Perhaps he owns the shop in which he carries on his business, has invested say about Rs 15000 of his own capital but he has also invested Rs. 5000 of borrowed capital. He also remains on his shop for the greater part of the day, when sales go on. His net income will thus be composed of rent of his shop, interest on his own capital at the current rate, his own wages of management, and lastly the reward of his enterprise. Not all these items are usually separated in this way, but they ought to be so separated and distinctly shown. There is a general tendency to confuse net income with profits of a business, but this is not the scientific way of dealing with this problem, though it may be a convenient way of looking at such things.

Profit and Wages. In different trades, different elements of net income play a prominent part. In some trades interest is the important element, in some it is earnings of management, in some others it may be only ordinary wages. This depends, as mentioned above, on the nature and character of the calling of a certain individual. There are hawkers who go about selling different articles from place to place, not as paid labourers of some bigger businessmen, but on their own account. It is obvious that a large part of their earnings would consist of wages, pure and simple; some part would consist of profit, but very little of interest. If their earnings are greater than those of paid hawkers, who are merely labourers, and whose earnings are pure wages, they will continue to work on their own responsibility and risk; but if they find that their net incomes do not go much beyond the wages earned by paid hawkers, they, too would give up their independent business and begin to work as labourers for other big businessmen. So we find that there is really very little difference but a close connection between profits and wages. A paid organiser gets wages or salaries, but one who looks after his own business is also entitled to profits, over and above his wages, which, though he does not receive from any one, have yet to be accounted for as discussed above.

There is, as a matter of fact, only a difference of degree between wages, earnings of management and profits, not that of kind. The reason is obvious. Labour, organisation and enterprise are really the three different aspects of one thing, labour. There is very little difference between labourers of a superior class and organisers, as the latter are recruited mainly from the former. The difference between organisers and enterprisers is even less. The moment an organiser begins to undertake risk also, he becomes an enterpriser.

Gross profits and net profits. The difference between the two has already been explained in a previous discussion. When out of gross profits, interest upon all capital, wages of all labour and other expenses have been deducted, what remains is net profit. Net profit is the reward of enterprise only, and has nothing to do with the earnings of the enterpriser's own capital and with his own earnings of management. By adopting the American *view of profits*, we get *net profits*, sometimes called *true profits*.

Earnings of management, risk and surplus. As mentioned in the beginning, the English view of profit is different from the American view. Marshall also differs from the American view. He considers earnings of management, remuneration for risk and ultimately certain accidental or special earnings as the different elements constituting profits.

The first two elements are quite definite. They are determined as much with reference to their demand and supply as

ordinary wages. There is at any time a definite demand for the services of those who possess the capacity to look after and organise a business. This demand proves effective only through the demand for commodities produced under the management of such people. Their services have a productivity which determines the limit of their earnings. On the other hand there is a certain amount of remuneration which people of this class expect in return for their services, which they know cannot be easily performed by every one but which, they also know, have begun to be increasingly performed by people on account of the spread of education and general intelligence among labouring and other classes. That is to say, earnings of management, like wages, have their demand side and supply side, and with reference to both their amount is fixed at any one time and for any one trade.

In the same way, the remuneration for risk is also determined with reference to the demand for services of the enterprisers or risk takers and their supply. In America and England, the number of such people who are prepared to undertake risks of various kinds is very large as compared to that in India. For this reason we find that the rate of profit as governed by the element of risk alone is lower in America and England than it is in India.

The amount of profits has to be fairly large before risk takers come forward in India; while in other countries even in the expectation of much smaller gains a large number of people come forward to undertake risks. This is due not only to differences of temperament, and to the easy availability of the capital required, but it is also due in a great measure to the varying degrees of trust in the economic policy of the respective Governments. So, here too, we find more, or less a demand and supply theory. Although the expectation of high profits is tempting enough to induce many people to undertake risks, there is also possibility sometimes even a probability, of heavy losses. Behind the few prizes in a lottery there are very many blanks. If we take into consideration both the prizes and blanks in business enterprizes, as a whole, we come to the conclusion that the average rate of profits is not at all a high one. So, keeping in view all these facts, there are some men who offer themselves for this service and the society accepts or rejects them by accepting or rejecting the commodities put on the market for sale through the agency of these risk-takers. In this way their remuneration is fixed by society.

There is however, a third element of profit, which is referred to as surplus profit, which represents the earnings of a business man either due to any accident or some other favourable circumstance. If general prices rise a businessman's profits

increase automatically. The entrepreneur does not do anything himself in bringing about a rise in prices. It is purely accidental, and so not only he alone, but everyone who is in this business will gain thereby. But some times extra gain or surplus profits are earned not because of such accidental happenings, but because of rare qualities in the head of the business. As if by intuition, he hits upon the right course of action which is best under the circumstances, every time there is any occasion for it. Where others bungle, he sees his way clearly through, where others hesitate, he goes forward; and when others advance too far, he only moves cautiously. In every case it is discovered that he was right while others were wrong. Surplus profits earned in this way have no price and no theory. They are due to what is called personal rent, that is to say, something very rare in a person. For this a person earns a high scarcity value, and continues to do so as long as such marvellous powers of reading the future and utilising the present remain confined only to a handful of people in a country.

Surplus Profit and Rent. There is something in common between surplus profit and rent. If the demand for a commodity suddenly rises, its producers and dealers earn an extra profit which has no connection with normal profits of the business. This is also the case with rent. When the price of agricultural produce increases, the owners of land get enhanced rents and other sellers of agricultural produce also get enhanced price which has no connection with normal price. The important difference, however, is that the extra profits disappear after some time, when a large amount of the commodity begins to be produced, but rents remain permanently high.

But where surplus profits are earned not on account of such accidental causes, but owing to the rare combination of certain qualities in the head of the business firm, there is no difference, between them and rent. Rent of a fertile plot of land is higher than that of an ordinary plot, because of some permanent differences in the texture of the soil. In the same way, these extra gains are due to the permanent superior qualities present in one businessman, which are not present in another. This is, what we call, the element of personal rent in some people.

Also, just as rent does not enter into the cost of production of a commodity, and so does not affect price in the same way such surplus profits as are earned by businessmen owing to their rare personal abilities, do not enter into the cost of production of the article, and therefore, do not affect price. This cannot be said of normal profits which do enter into the cost of production and affect price.

Turn Over. The amount of profit is determined by the rate of profit on sale, multiplied by the total amount of sale. If

the rate of profit is, say, 10 p. c. and the sale of goods in a particular period of time has been of Rs. 10,000, then the total amount of profits is Rs. 1,000. If, however, the rate of profit is only 5 p. c., but the sale of goods during the same period has been of Rs. 100,000, the total amount of profits rises to Rs. 5000. Profits, therefore, depend both on the rate of profit and the turn over. In a small establishment the total turn over being small, the rate of profit is high. Even then, total earnings in a small establishment seldom come up to that in a large establishment. In the latter, even though the rate of profit may be low the total amount of profits rises to a very high figure on account of the rapid turn over. This is one reason why in a large scale business, the prices of commodities are low, and yet the profits of the manufacturers or traders are high. Herein also lies the importance of markets for large scale industries. If a few markets are lost, the out turn diminishes, and the price cannot remain as low as it was before the loss of the markets. On the other hand, if some more markets are secured, the out turn increases, and with it there is a tendency for the price to fall.

Profit and Price. It has already been mentioned above that normal profit does effect price, as it enters into the cost of production of an article; but that surplus profit which is earned by certain exceptionally gifted business men and manufacturers does not affect price, as it does not enter into the cost of production and is of the nature of rent. Another sort of relation between profit and price may also be explained. Profit is very sensitive to price. If the price of a commodity increases by even so little, other things remaining the same, the profits of the business men increase very considerably specially, if the business is on a large scale, and the turn over is rapid. On the other hand, if there is a fall in the price of the commodity the profits decline considerably; and may disappear altogether.

Profits bear the brunt of a fall in price, or an increase in expenses under any item. In businesses where the amount of fixed capital is very large as compared to circulating capital, the rate of interest, at which capital can be borrowed and replaced, affects considerably the amount of profits earned by the business men. In industries where wages bill is heavy, a slight increase in the rate of wages sometimes threatens to wipe off the entire profits of the business men. Labour leaders, much less the labourers themselves do not keep in view, the fact that on account of keen competition in the industrial world, the rate of profit is everywhere on the decline. If the rate of wages is increased only by, say one Rupee per week, that is to say, only by a few annas per day; and if the number of labourers in this industry is, suppose, 1000, then the profits of the manufacturer will be reduced by Rs. 4000 per month, unless the amount of out put per labourer increases, or there is a reduction in other

expenses of production or there is a rise in the price of the commodity. Profits are, therefore, very closely related to interest, wages and price.

Profits in India. The main industry in India is agriculture. Its condition, however, is not at all satisfactory. The agriculturists, that is to say, the growers of the raw produce do not, on the whole, earn any profits; on the other hand, the agricultural industry in India has so far been carried on at a loss, as is obvious from agricultural indebtedness which had become so great by the year 1939. There were no doubt, other causes also of agricultural indebtedness, but the absence of profits was also a very important cause.

As has been mentioned in some other connection in this volume, the cultivators do not really know how to calculate the expenses of production of their crops, and consequently, they have no idea of the true profits of agriculture. What they regard as profits are nothing more than their own wages, and those of their family members who assist them in agricultural operations. While forming a rough estimate of their expenses, they never take into consideration their own wages, and so do not deduct the amount of money that they might have earned as wages, from their gross income. Nor do they deduct any amount as provision for the insurance of their cattle, or for the insurance of their crops against accidents. So we are safe in concluding that the most important industry of India does not really yield any profit to those who are primarily engaged in it.

This does not, however, mean that those who are engaged in the sale and export of agricultural produce, namely, the tradesmen and commercial people, do not earn large profits. They earn profits through the difference in prices at which they buy produce from agriculturists and sell it, either locally in the country, or export it to foreign countries. This class has made large gains during the last about one hundred years, since the advent of railways in India and the development of the import and export trade of the country. They have made large profits because, on the one hand, they could always get a good bargain with the cultivator, and, on the other, they got all facilities from commercial banks, railways etc., as the Government policy was to encourage the foreign trade of India which consisted in the export of raw materials and the import of finished products. Conditions have changed during the present war, but how far they will prove permanent cannot be surmised as yet.

The manufacturing industry of India may be divided into two parts — (a) that which is carried on a small scale (b) that which is run on modern lines. The condition of Industries run

36-56
on cottage lines and on a small scale, is as bad as that of agriculture. Cottage industries have no support of the Government and they are only struggling here and there. If small scale manufacturers are still showing signs of activities at certain places it is because they, too, are quite satisfied with earning their wages of labour or wages of management. They think that they are getting some profits, but this impression is due to the fact that they have not very accurate idea of the scientific meaning and significance of profits. If from their small earnings they deduct interest on their own capital, and their own wages of labour and management, they will find that nothing remains behind, except perhaps a negative quantity.

Industries run on a large scale do make some profits. But they are ever apprehensive of unfair competition from abroad either with subsidised commodities or with commodities imported into India from countries with highly depreciated currencies. If inspite of these handicaps, some industries still show profits, the Government is ready with its excise duty. In the end it may be said that there is not much spirit of enterprise left among Indian capitalists on account of uncertainty on various grounds. For this reason very few enterprises are undertaken and fewer succeed. The present war offered a unique opportunity for many new enterprises to be started in India, for meeting the numerous war requirements. For one reason or the other, however, it was not availed of. On the other hand, when Indian capitalists offered to start new enterprises of this nature on their own responsibility and with their own capital, they were dissuaded from doing so and sometimes hindrances were placed in their way by the Government. The result has been that Indian masses have suffered greatly for the paucity of goods, and the Government of India, too, find themselves still dependent on foreign markets for many essential goods which could be manufactured in the country. Better sense has begun to prevail now (1944) and a motor car manufacturing company has received permission to start work.

CONSUMPTION OF WEALTH

CHAPTER XXV.

CONSUMPTION

Meaning. The meaning of the term Consumption has been given in the chapter headed 'Some Elementary Notions' in the opening pages of this book. It will be better if before going through this chapter that portion of the book, in which the meaning of the term Consumption is explained, is read again.

Consumption is quite different from destruction. The latter means insensible and irrational treatment of wealth, or any other thing ; while Consumption means extracting advantage or benefit out of a certain thing. There is hardly any man, outside a lunatic asylum, who would like to deliberately destroy his or others' wealth, except in a riot or war. But it very often happens that what is usually called consumption, may be nothing better than waste or destruction. If a certain thing is consumed in such a way that no benefit really comes out of it to any body, it is really destroyed rather than consumed. It is not every body who understands the right use of a certain thing. If, therefore, he gets possession of certain things, which he does not know how to use, and which are really beyond the reach of his intellect, he will either keep them aside or throw them off. An uneducated son of a highly learned father may find himself in possession of a very good collection of books left to him by his father. Not being himself educated, he cannot make a right use of this library, and so, as far as he is concerned, the books are useless for him. After sometime, the whole collection will really be destroyed by careless handling and misuse.

Sometimes people inherit wealth, but they do not know how to make a right use of it. The result is that the wealth and property is not really *used*, but is *destroyed* in course of time. If tenants do not make a right use of the house in which they live, but use it carelessly, which might result in greater damage than the rent paid to the landlord, the house is not *used* but is really being destroyed. In this way we can say that in one sense there is more destruction of wealth than consumption. By consumption of wealth we mean its right use, while by destruction we mean a wrong use. By converting money into odd looking gold ornaments worn by ladies in

many parts of India, wrong use is made of a wealth. A better use would have been if the money were invested either in banks, or in the purchase of certain Government securities, or in any other way, which might have brought regular income to the owner thereof. The former is destruction, while only the later is true consumption. Many ladies and some gentlemen may not agree with this view, but here it is, for all it is worth.

When a man gets an income either out of his business, or out of his service, he has two courses open before him. One is to spend it for the satisfaction of certain immediate wants. The other is to spend a considerable portion of it for the satisfaction of his present wants and to keep back a certain portion which may not be very necessary to spend just then. He saves and invests this portion in such a way that he begins to get some income out of it; that is to say, he converts this saving into capital, so that he may begin to earn an increased income from it after sometime. Saving may be converted into capital, as in the above case, or it may simply be kept in the form of wealth, by hoarding it. Wealth may be hoarded, either by simply keeping money in one's iron safe for some future use or by converting it into gold ornaments. When money is kept back from current use and stored, it is called hoarding. But if it is kept back from the right use, that is to say, is neither rightly spent nor rightly invested, but is wrongly utilised, it is, as mentioned above, destruction of wealth. So money converted into gold ornaments is really worse than hoarding. It smacks of destruction of wealth as it progressively continues to depreciate as a result of constant use or remelting in response to a new design!

Importance of Consumption. Earlier economists did not attach any great importance to the study of consumption. As a matter of fact, they did not even recognise it as a separate, or an independent branch of Economics. A little discussion of a few important wants was regarded enough for the study of consumption. Adam Smith and other classical economists, gave very great importance to production, but neglected the study of consumption. But in modern times we find that a great importance has begun to be given to the study of this branch. It may not be wrong to say that in modern times there has been a sort of reaction against the old tendency, and we find that to the extent the study of consumption was neglected by previous economists, it is now emphasised by modern writers. This is perhaps a natural result of the earlier neglect. In the determination of value, and in so many other connections, the cost of production, or the supply side, was given very great prominence, while the demand or utility side was entirely neglected!

It was Jevons and other contemporaries of his, who gave consumption its rightful place. Jevons gave a close and careful attention to the study of demand and consumption, and also to the motives underlying them. He discovered a new theory, or

strictly speaking a new point of view in connection with the theory of value and placed the study of demand, and so of consumption, at a very high pedestal. He also brought to the notice of people the great injustice that had been done to consumption and demand by previous economists. So from his time onwards, the study of consumption began to receive very great attention.

Economics is concerned more with qualitative discussions than with quantitative ones. Mathematical economists have tried to give it a quantitative turn, and have adopted methods to measure different economic motives as accurately as possible. It cannot be said that this change of method or point of view, has done any real good to the development of Economics, but it cannot be denied that it has given a great deal of definiteness to our ideas regarding economic phenomena. Much more important in its results has been the adoption of statistical methods in collecting and comparing economic data from time to time and from place to place. A comparison of the budgets of consumption of different classes of people gives far greater insight into their economic positions than a mere theoretical or verbal discussion.

A great change has also come over the mentality of people during the successive decades of the 20th century. The effect of consumption upon production was previously not so carefully studied as it is now. One's efficiency is affected enormously by the quantity and quality of those things that he uses or consumes. If a man does not consume as much as is necessary for him, he cannot also produce much, after some time. Also, while production is concerned more with value and wealth, consumption is related more to utility and welfare. In the 20th century, more attention has begun to be paid to the welfare of an individual, or a nation, than to wealth. This is an additional reason why the study of consumption is growing in importance. Then, lastly, the aim of Economics being elimination of poverty from the land, it becomes essential to study and watch the condition of working classes, and of the poor and indigent people in a country. By collecting figures regarding the quantities of different articles consumed by them, a rough idea can be formed of their present economic condition. When this is done, necessary steps can be taken to improve their position. Also, it is necessary to study the consumption of the rich and well-to-do classes of the country, with a view to discourage that portion of it which is considered to be injurious in the interests of the country, and also of the consumers themselves. The lot of the poor can be improved only out of the funds collected by taxing the consumption of the rich. So, the study of consumption has, in recent times, assumed an importance which it never possessed before, but which it always deserved.

Human Wants. The nature and characteristics of human wants are quite different from the nature and characteristics of the wants of lower animals and of negroes. The wants of animals are very few. They are mostly, what we may call, physiological wants ; that is to say, those that are connected with the living organism of an animal. There is, for example, the want for food and water ; the need for protection from the inclemencies of the weather, and then certain other animal wants which are natural to every living being. After these elementary wants are satisfied, animals or undeveloped human beings, like negroes, become quite satisfied. They do not feel more wants, and so undertake no further activities. Carnivorous animals, after killing their prey, and satisfying their hunger, take rest, and do not like to be disturbed by any living being during this period. Animals which they usually prey upon, may pass before their eyes, without exciting their curiosity, much less anger, or desire for destruction. No new wants take the place of old ones and so, for this reason, animals may be regarded as very happy. After satisfying their hunger and thirst and their sexual instinct, they do not develop fresh wants of a different character.

The same is also the case, to a considerable extent, with negroes, or with those who are not civilised in the modern sense ; that is to say, those who have very few wants. The leading characteristic of economic progress in modern times is the multiplicity of wants. If the wants of a people are few, it is supposed that their civilisation is of a backward type. Looked at from this point of view, India is not regarded by some as a fully civilised country. India and China, as also certain other Asiatic countries, are regarded as semi-civilised in this sense. Civilisation however, is a relative term ; that is to say, it has no absolute or fixed meaning attached to it. Different people give different interpretations and significance to it. Europeans give a different meaning to civilisation while the Asiatics, and especially the Indians, hold a different view altogether on the subject. While in the West, a multiplicity of wants is regarded as a sign of progress, in the East only that individual and those nations are regarded as superior to others who have brought under control their wants and have succeeded in reducing them. This does not necessarily mean a reduction in every kind of want. If a certain person's material wants diminish but his non-material wants increase, he cannot be said to resemble animals. Higher wants take the place of lower ones, and this process continues till material wants, which are clearly the grosser of the two, are entirely brought under control by an individual, and the non-material wants, which are sometimes referred to as spiritual, go on increasing. It is only in this sense that prophets like Jesus Christ and Moham-mad, and great men like Gautam Buddha and Mahatma Gandhi are universally accepted as highly developed individualities;

though their material wants were few. The greatest man of the world, Mahatma Gandhi, has the least number of wants.

We may now discuss certain characteristics of wants, in general :—

1. Wants are unlimited in number Wants are unlimited in number. This is their most outstanding characteristic. When one want of an individual is satisfied, he is not satisfied for ever. The moment his first want is satisfied, another comes up and takes its place, and he begins to exert himself for the satisfaction of the second. When, in course of time, this second want also is satisfied, a third and then a fourth, and so any number of wants continue to appear after the satisfaction of previous ones. This is, in one sense, at the basis of all economic progress, using the term in its modern sense. This is what is called by certain people a 'splendid discontent'. If a man is very easily satisfied by his circumstances, or by the position in which he finds himself, he will not gain very much by this attitude of his mind, except that he would, save himself from the worry of effort and struggle. When we go and mix with untouchables, we find that many of them, perhaps most of them, are quite satisfied with their lot. This is really a very alarming symptom. The best way of improving their position is to make them discontented with their present lot and position. The *chamars*, sweepers, *doms*, *kanjars* and others, have actually begun to regard themselves as something totally different from the rest of the humanity. It is no doubt, highly regrettable, but we ourselves are responsible for this state of things. So, what is really needed for the material progress of a society is a state of discontent in the minds of people regarding their own condition and position. Only then will it be possible for them to put up efforts and make sacrifices for the satisfaction of their increasing wants. This is also the only possible method of raising their standard of living. If a man wants more commodities before he can feel satisfied, he will have to work harder in order to satisfy these growing needs.

2. Wants are limited in intensity The second characteristic of wants is that they are limited in intensity. Although wants, in general, are unlimited in number, each separate want is limited in intensity. If it were not so, wants could not be unlimited in number. If the desire for food were not satiable, the desire for clothing could never arise. If it were not possible to satisfy the more important wants, a man could never think of less intense, though perhaps more refined, wants. So, both the first and the second characteristics go side by side. While the first characteristic is at the basis of all economic progress, the second characteristic forms the basis of a very important law in Economics, called the Law of

Diminishing Utility. We will have occasion to discuss this law after sometime. Here it may be mentioned that it is not always possible for the satisfaction of each separate want to be carried to the utmost limit. Also it is not always necessary that previous wants should all be *completely* satisfied before a fresh want can arise. A point of complete satiety is neither possible, nor is it really, very desirable. As is often said, it is better to give up the consumption or use of a certain article, even though temporarily, at a point when the desire for it has not altogether died out. When, in certain cases, the satiety level is reached, it takes some time for the desire to wake up again. If 30 or 40 cigarettes are used by a smoker, when he usually smokes only 15 to 20 cigarettes—this often happens on marriage occasions or in certain other social functions—there is a sort of reaction, and so, for some time, there is some disinclination to use or consume the commodity which was at one time so much to the taste of an individual.

3 Wants are complementary. Wants are also said to be complementary. It means that there are many articles which are wanted in a group. A single article of that group does not satisfy the real need; only when they are supplied in a group, can the want be satisfied. If a person wants to play tennis, he must have tennis shoes and a tennis racket; while in the club there must be a tennis lawn, tennis balls, net, screens, ball-pickers, chairs and tables etc. All these things are wanted in a group. This characteristic has created certain very complex problems of value, which have been briefly discussed in the foregoing pages under joint demand, joint supply etc.

4. Wants are competitive. The next characteristic is that wants are not only complementary but they are also competitive. This is also one of their most important and leading characteristics. We are always engaged in balancing advantages and disadvantages of one course of action against the other. The problem that always comes up before a family man, or before any man if he lives and moves in society is which wants to satisfy and which to leave unsatisfied, for the time being. Also, an equally important problem is what method should be adopted to satisfy those wants which it has been decided to satisfy. There being numerous methods to satisfy wants, it is not an easy task for an individual to decide as to which wants should be satisfied and how. Here we find the great problem which we discussed under the law of substitution. An organiser is always faced with the competing claims of different commodities and services for the satisfaction of a particular want. A family man is usually confronted with a large number of commodities which are equally competent to satisfy certain wants of himself and his family, which he thinks must be satisfied. Leaving aside the organiser in the field of production, and the head of a family in

the domain of consumption, we find that every individual even in humbler spheres of life, finds himself almost torn asunder by a large number of alternative actions open to him at every moment. At any one time there are a number of things that can be undertaken. Just as a unit of money gives a command to an individual to get in exchange any article to the extent of the purchasing power of the unit of money, in the same way, but in a greater measure, a unit of time gives a person a wide control over numerous alternative courses of action, which may be adopted during that unit of time. Consequently, in both cases a man finds himself very busy in comparing the claims of different commodities and numerous alternatives, one against the other, for final adoption.

5. **Wants tend to become habits.** There is still another characteristic of wants which is important in its effect upon the economic well being of mankind. It is that wants, when they have continued to be satisfied for sometime, tend to become habits. This means that if a person has begun to satisfy his wants in a particular way, after some time he becomes accustomed to the satisfaction of those wants only in that particular way. This characteristic is both advantageous and disadvantageous. Suppose a certain person, born in a high and rich family, becomes accustomed to certain comforts and luxuries of life. After some time his father or supporter dies, and for various reasons, over which he had not much control, his position becomes very weak. Having become accustomed to certain comforts and luxuries, which have now become habits with him, he finds it very difficult to give them up. He actually feels pain when some of his customary wants are not satisfied in the usual way. He has perhaps never spread his bedding himself, and also never cleaned his own room. If he finds himself in a position where it is not possible for him to engage a servant, and, consequently, if he finds himself compelled to spread his own bedding and clean his own room, it will cause him a great deal of pain and suffering. That is why it is often said that a man should not become so much accustomed to a certain want or habit that if he is required to give it up, for one reason or the other, he may not be able to do it without pain and suffering.

But there is also a great potentiality for good latent in this characteristic. When once people become accustomed to the satisfaction of certain wants in a particular way, they will not easily give up the consumption of those articles, and they will not easily submit to those conditions which may make it impossible for them to satisfy their wants in the traditional manner. Labourers in England, for example, who have now become accustomed to a pretty high standard of living cannot agree to a reduction in their wages, or to an increase in the number of hours of work. They have raised their standard of living to such an extent, and their

wants have become so varied and numerous, that reduced wages will make it impossible for those wants to be satisfied. They will, therefore, resist with their full strength any reduction in wages. Then again, they have become so much accustomed to take part in certain activities after their work in the factory is over, that if the number of working hours is increased, they will not find it possible to adjust themselves to changed conditions. They cannot therefore give up any of those outside activities which have begun to claim a large proportion of their time. This is then the bright side of this characteristic.

Classification of Wants Wants are classified into Necessaries, Comforts, and Luxuries. By Necessaries are meant those wants which must be satisfied in order to enable a person to preserve his life and efficiency in a normal way. Comforts are those wants which when satisfied enable a person to pass his life with ease, and without any care and anxiety. Luxuries are those wants which enable a man to lead a life full of material pleasures. It is, however, very difficult to give a correct idea of the exact significance of these terms.

Necessaries are further divided into Necessaries for existence, Necessaries for efficiency, and conventional Necessaries. Under Necessaries for existence are included those wants the satisfaction of which is necessary for the preservation of the life of an individual. They comprise wants for plainest food, and, of course, water and only so much amount of clothing and shelter which is necessary to protect the individual from the vicissitudes of different seasons of the year.

Necessaries for efficiency are those wants which should be satisfied if it is meant that a person does not simply drag on his existence but can live and work efficiently. While he needs the plainest possible food for the maintenance of his life, he needs a slightly richer food for maintaining or improving his capacity to work. If a certain person gets a few vegetables or pulses, now and then, or a little Ghee or milk, or things like that, they will surely help him in developing his health and so his physical capacity to work. There are also certain other wants which are neither essential to be satisfied on the ground of the maintenance of life, nor on that of improving or maintaining the efficiency of an individual. Their satisfaction has begun to be regarded as necessary only because man has become accustomed to them. They are called conventional necessities which mean that they are necessities only because of customs or habit.

Let us examine in fuller details the three classes into which necessities have been divided. Before proceeding further it may be mentioned at once that the whole subject which we are now studying is of a highly controversial character.

There is no finality about it, and also no definiteness anywhere at all. The notions underlying the terms *Necessaries*, *Comforts* and *Luxuries* are all relative, that is to say, what is a *Necessary* for one at one place, may be a *Comfort* for another, and a *Luxury* for a third; or what is a *Necessary* for one at one place may be a *Comfort* for the same individual at another place or for other individuals at other places. With the change of circumstances and place and time, and the individual himself the character of wants changes. What is a plain food for an American labourer may be quite rich for an English labourer; while that which is plain for an Englishman may be rich for an Indian. As regards the amount of clothing or house room, nothing definite can be said about anything or any one as a very important factor climate comes in here. There are still greater differences between individuals at different times and places. The whole subject, therefore, is very vague, but it is, none the less, important, and deserves a very careful study.

Necessaries for existence A *Necessary* for existence is a phrase which is very difficult to explain. What significance is to be given to the word *existence*? A certain person can drag on his existence for a number of years even though he is, during all this period, only partly fed, partly clothed and partly housed. This is nothing else but passing one's days in a manner in which human beings, in this second quarter of the 20th century, should not be permitted to pass them. This is far from living; it is not even existing. It is simply dragging one's existence. If he has enough food, clothing and house accommodation but only just enough, even then he should be regarded as merely passing his days of existence. But what is enough food, enough clothing and enough shelter? It will have to be admitted that a greater amount of food and also a better quality of it, is needed in a cold country than in a hot or warm one. That is also the case with articles of clothing, and with house accommodation. So even *Necessaries* for existence may differ from country to country, though not among individuals in the same country, where climate is not different. In very cold climates, for example, some amount of liquor may be necessary for efficiency, or even a necessary for existence. Under such conditions it assumes more the character of a medicine than that of an article of food or drink. However, it is necessary that we should give a different meaning to the phrase '*Necessaries* for existence'. It should mean plain but wholesome food, at least twice every day, enough to satisfy a person's craving. It should also mean as much clothing as is necessary not for display or distinction but only for the purpose of covering his body for purposes of decency and for purpose of protection against the weather; also a small house or a room, if he has no family, where he can protect himself from the

burning heat of the sun or from the cold winds and frost in the winter and from the rains in the rainy season. This should be our idea of a man continuing his existence. All those things, therefore, that are necessary to enable him to pass his life in such a way should be called **Necessaries for existence.**

Necessaries for efficiency A much more difficult notion is that of necessities for efficiency. It differs widely from place to place and from time to time. We think it is almost impossible for any understanding to be arrived at, or any uniformity of ideas to be reached, between any two writers on this subject. Marshall writes that for the proper maintenance of the efficiency of a person who is required to do mental labour, like a doctor, a barrister, a professor, or a statesman, it is necessary that an expenditure of at least £20 per month should be incurred for his personal needs. Now £20 per month comes to mean about Rs 270 per month. We cannot say definitely about those doctors and statesmen whose incomes may run to four figures or even more, but we can certainly speak on behalf of professors or teachers that for any one of them to think of spending Rs 270 per month upon himself alone, is absurd. And yet Marshall is quite serious when he writes this. Even making allowance for high prices in England and a high standard of living prevailing there, it is not possible to make any useful comparison between the ideas of efficiency prevailing in England and those in India. It may, however be mentioned that leaving aside those people who, not being well-to-do, cannot afford to spend money in such a way that their efficiency may increase or at least may not diminish, there are many cases where along with the capacity to spend money, there is very little sense of proportion or discrimination. Many rich people of India who can afford to spend enough money over their personal health, spend it in such a way that their body becomes diseased rather than healthy. They take for example, such articles of food every day which they cannot very well digest. They are anxious for taste and flavour rather than for their nutritive properties. More butter more ghee, more milk, more curd and more sweets are regarded more deserving of attention than wholesome foods like fruits. The science of dietetics is the most neglected science in India to-day. What is true of articles of food and clothing is truer of articles for general use.

Conventional necessities Sometimes expenditure on certain counts and for certain purposes becomes so necessary that it cannot be avoided under ordinary circumstances. Necessaries, for efficiency may be postponed, but Conventional necessities, cannot be given up by any but the very strong willed people. Those objects which have begun to be regarded as necessities

on account of custom have more or less a sort of semi-religious sanction behind them. Expenditure for such purposes, however, is not incurred merely on the ground that they have a religious or a semi-religious sanction; there are numerous cases where money is spent because people are not strong enough to go against the custom prevailing in the society to which they belong. This cannot be said of expenses incurred in connection with those wants which have become necessities only by habit. If the habits that are formed are beneficial the expenditure may be justified; but if they are positively injurious to the person who indulges in them it is a misnomer to call them Conventional necessities, but a more correct name would really be *luxuries*. Conventional necessities are only such as the morning paper, which may also be called a necessary for efficiency by those who are engaged in higher teaching or belong to the legislative or executive department of the Government or belong to certain liberal professions which require an up-to-date knowledge of current events for the successful discharge of their functions; also such wants satisfaction of which is necessary to maintain a standard which has become more or less fixed with regard to a class or society or, lastly, items as lighting expenses on the Dewali night, certain special articles on festivals and other social occasions like births, deaths, marriages and so on.

Comforts and Luxuries. Comforts and luxuries are those wants which come up for satisfaction when necessities are completely satisfied. A person wants some articles for the purpose of preserving his existence; some for making himself more efficient; while others for the purpose of getting enjoyment. A few pictures in a room, a number of chairs and tables, and other articles of furniture, such articles of dress which give the wearer some distinction from others on account of their decent and smart appearance, a house which has accommodation enough for growing vegetables and plants, for keeping flower pots, and in which it is possible to allot different rooms for different purposes; these are comforts. If, however, we continue along this path for a long time, we will find ourselves in the domain of luxuries. More costly clothing, a very big house, more costly furniture, more articles of decoration, a large number of servants, and so on, are luxuries, looked at from a general point of view.

Dr. Basu's distinction We are all the same on a very thin ground as yet. There should be some basis on which notions regarding Necessaries, Comforts and Luxuries should be formed. This test is usually that of efficiency. Dr P. Basu has devoted considerable attention to this part of the discussion in his book, *Economic Principles for Indian Readers*, and has given original

ideas regarding the distinction between necessities, comforts and luxuries. According to him necessities are those wants the satisfaction of which increase efficiency, and their non-satisfaction diminishes efficiency; comforts are those whose satisfaction does not increase efficiency but whose non-satisfaction diminishes it, while luxuries are those whose satisfaction does not increase and non-satisfaction does not diminish efficiency.

The first test which deals with necessities is obvious except in the case of conventional necessities especially those which are based on custom. Their satisfaction does not increase efficiency, because the satisfaction of such wants has nothing to do with efficiency, in the ordinary sense of the term. Regarding comforts it may be said that if the satisfaction of such wants does not increase efficiency their deprivation cannot decrease it, unless, as Dr. Basu says, the man has become accustomed to them. In that case, however, such wants should not be called comforts, but conventional necessities. A comfort should really have nothing to do with efficiency. If it does, it becomes either a conventional necessary, based on habit, or a necessary for efficiency. Regarding luxuries Dr Basu says that their satisfaction does not add to the efficiency of a man, nor does their deprivation reduce it. This is right, except when a luxury is such that indulgence in it impairs the efficiency of an individual. The use of wine or excessive use of tobacco, either in betel or in smoking clearly impairs efficiency. In such cases, while indulgence in a luxury reduces a person's efficiency, its deprivations will certainly increase it. Many difficult and complicated questions arise at this stage. There are certain people who can work much more efficiently while they are smoking, but whose quality of work suffers deterioration if they are deprived of a smoke. In this connection it may be said that this happens only when an individual very much accustomed to smoke, is deprived of it almost suddenly. Under such conditions he will certainly have a longing or a craving for it for a short period. He will not be in a position to work quite satisfactorily; but if he once decides to give up the habit, then although for some-time he may not feel very happy, after some time he will not feel any craving for it, and at this stage his efficiency will certainly begin to increase.

General Remarks. Some illustrations may be of help in understanding the difference between Necessaries, Comforts and Luxuries. A motor car is a Necessary for efficiency for a doctor, it is a comfort for a vakil with a good practice, but a Luxury for a professor living in the college compound. Here we have kept in view only the professional need of a person. Some times the purpose is not given as much importance as the pecuniary circumstances of the person concerned. If a person

indulges in the satisfaction of a want which requires a large amount of expenditure which he is not really in a position to incur it is called a luxury; but if his pecuniary circumstances are such that he can very well afford to spend money over it, it is called a comfort. If, however, his monetary circumstances are very affluent, then, although a very small advantage may accrue to him by spending a pretty large amount of money over a certain object the satisfaction of the want may be regarded necessary for maintaining the efficiency of that individual.

The following points may also be kept under consideration. Keeping in view the position, health and financial circumstances of an individual, it is not very difficult to determine the various categories under which his wants fall.

Then, time also has to be kept under consideration. At one time a thing may be a necessary for efficiency, at another it may be a comfort, or even a luxury. A cup of tea during the cold season for a person coming back from his office, is necessary for efficiency; but during the hot weather, or, even during the cold weather, but at a time when there is no such apparent necessity for it, a cup of tea may be regarded either a comfort or, sometime, even a luxury. In certain places like Bombay and Madras, a cup of tea is treated like a betel in these parts of the country. A cup of tea is offered to an individual who visits a house in the same way that a betel is offered to him in these parts. It is obviously regarded as a Conventional Necessary.

Place also plays an important part in determining whether a want is a Necessary, Comfort or Luxury. A certain thing may be a Necessary for efficiency in a town, but a Luxury in a village or at certain other places. Shoes slippers, or *chappals* are necessities for efficiency for most people belonging to the lower and upper middle classes, while they are living in a town, or a city and carrying on their business or services as the case might be. But when these people go to the banks of a river, and live there for a week or so, shoes are not used in the sand, and so they no longer remain necessities for efficiency but become either conventional necessities or even luxuries for certain times of the day. Those things which are necessities while a man resides in a town, may not remain so when he goes to live in a village. The character of certain other wants is also determined with reference to the climate and physical features of a particular place.

There is yet another point which requires some consideration. The first few units of a commodity are very much wanted by every individual. Later on, further units of same commodity are not so necessary, till a time comes

when he does not want any further units of it. This is an important human tendency which we will have occasion to discuss in the succeeding pages; but it may be pointed out here that the units of a commodity are also very important in determining the nature of the want of an individual. The first chair for example, to a student, or to any one who has to read and write, will be necessary for efficiency. The second may be called a comfort, the third unit will become a luxury, and the fourth in a single room of a hostel will become a positive nuisance. The same is the case with every unit of an article to different individuals. So, we conclude that before, deciding whether a certain want is a Necessary, Comfort or Luxury, attention should be given to the person, place, time, circumstances and unit.

CHAPTER XXVI

MEASUREMENT OF WANTS

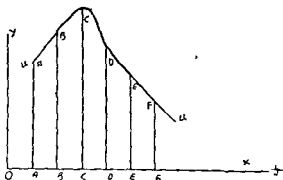
Difficulties of measurement. The study of consumption is to a large extent, a study of human psychology. A want is a subjective notion. It is internal to a man, and so cannot be weighed or measured. It is, therefore very difficult to compare one want with another, or the same want at different times, directly. But, unless wants begin to be measured, or compared and contrasted, not much progress is possible in the study of consumption. For this reason it is necessary to measure wants with reference to a certain tangible measure. That measure is money. The intensity of a man's wants can be measured by the amount of money that he is prepared to pay for it. Here, then, is a measure which is quite convenient. If a man pays Rs. 4 for one article, and Rs. 8 for another, it may be inferred that his desire for the second is twice as much as that for the first. It is only for this reason that he is prepared to undergo twice as much sacrifice to obtain the second commodity as for the first. Money, then, serves the purpose of measuring the intensity of a man's desire for the satisfaction of different wants.

It may, however, be confessed, at the outset, that although money is the best available measure of want, or utility of a thing, it is not a perfect measure. What a man is prepared to pay for a certain commodity does not always depend upon the urgency of his demand alone. It also depends upon the amount of money in his possession. A rich man will be prepared to pay more for a certain thing than a poor man. Also, it has been observed, that salaried people spend more freely during the first week of the month than during the last week. With all that, in the absence of a better measure, money is the one that serves our purpose fairly well. That is why it has been adopted in the economic world as a measure, not only of value, but also of utility.

The law of diminishing utility or satiable wants. This law is directly deducible from the second characteristic of wants discussed above namely, that wants are limited in intensity. While discussing this characteristic we explained that human nature was so constituted that when a particular want begins to be satisfied, the succeeding units of the same commodity do not yield the same utility as the earlier units. This diminution in utility begins very early, and then continues regularly, till a point is reached when any further increment does not add any utility; that is to say, the utility of this increment becomes zero. This is the essence of the law of diminishing utility. It is a very simple characteristic of human wants, but it has

been made unnecessarily complex by psychologists and in recent times by economists. Hair splitting discussions are made regarding this simple law, and ingenuous exceptions are devised to prove that it is not of universal applicability.

A utility curve gives a diagrammatic representation of this inner working of a man's mind and his feelings. Units consumed may be measured along the horizontal line OX, while the amount of utility derived from successive units may be measured along the vertical line OY. In the curve given below the utility of the first unit consumed is AA', that of the second is BB', and so on till FF'. AA' is smaller than BB' while CC' is greater even than BB'. After CC', other lines which measure utilities of succeeding increments, begin to decrease in length, showing that the utility of successive increments begins to diminish after the third unit. Up to the third, the utility increases, but after that it begins to diminish, and then goes on diminishing. Theoretically, however, a stage is possible when the consumption may be carried on to such an extent that the addition of utility may become zero, or it may become even negative instead of positive. After this point, the law of diminishing utility, automatically changes into the law of increasing disutility; that is to say, the more the consumption is persisted in, the greater is the disutility. This stage is seldom reached in practice, except either under compulsion, or on account of some serious mis-calculation.



The form of the curve may not be uniform, even after the optimum point is reached. At a certain stage the utility may rise accidentally as compared to previous units on account of sudden change in ideas or views or any thing but the general incline of the curve will always be downwards, with some variations here and there. It can be a very useful exercise for those interested in such problems to draw utility curves of various activities of theirs. The utility curve, for example,

of cycle a trip may be drawn. Allowance may be made for anticipated pleasure which may be shown by means of a dotted line in the curve.

The law of diminishing utility as also several others which we have discussed before, are not purely economic laws. The present law is a law based on human psychology and human nature. To that extent it is uniform in different parts of the world. It is also of very wide application. It is no doubt true that different men behave in different ways under various stimuli but these differences in behaviour are only in matters of unimportant details. The general trend is always in the same direction. Let us examine a few illustrations for clearing any obscure points. A common illustration is that of water. Sometimes, when our desire for water is very intense, as during the summer, utility is very high in the beginning. But when we begin to drink and our desire begins to be satisfied, the utility of successive quantities definitely begins to grow less and less, till a time comes when we put off the tumbler. This means that we no longer feel any desire for a further amount of water, which, at this stage has therefore no utility for us. If, however, some body compels us to drink more water, as was sometimes done in ancient times when torturing was very common, the utility of this additional water will not be positive but negative. This means that instead of deriving any pleasure out of the additional quantity of water, we suffer pain. A man suffers death from drowning on account of the excess of water, the same water which is so essential for the preservation of life !

Food and water satisfy, what we call physiological necessities. For this reason such wants are satisfied at a very early stage. But not all wants are of this nature. Wants of a social character have got a greater range than physiological wants. The want for clothing has a much greater range than the want for fooding or water. If a person has got a large number of clothes, an addition to this stock may not give him as much utility as did the first few additions, but the utility does not diminish very quickly, and it is very rarely that it becomes negative. A second pair of shoes certainly does not give even one third as much utility as the first pair, a third not even one tenth of what the first or the second gave; but still a fourth or a fifth or a sixth will not begin to yield negative utility. As regards house accommodation, if a man can afford a big house there is a very wide range for the satisfaction of this want. A house containing eight or ten rooms is quite a big one, and can satisfy the requirements of a well-to-do man, but if the number of rooms becomes 12 or 14 or 20, the utility of the additional rooms will not diminish very rapidly. So, although,

utilities of additional increments of articles diminish unfailingly after a certain stage is reached, the rate of diminution is different in different cases

Universal character of the law. We can, therefore, safely conclude that the law of diminishing utility applies to all individuals in all cases and at all times. It is not, as a matter of fact, an economic law, but one based on psychology and physiology. As such it cannot have exceptions as long as the psychological and physiological characteristics of human beings remain as they are. If properly understood and properly qualified, the law cannot have any exceptions. Let us however discuss a few which are more apparent than real, but which are, none the less, mentioned and discussed in books on Economics.

Apparent exceptions. The first is that it is not at once that utility of successive increments begins to diminish. Sometimes the first few increments of an article yield not diminishing but increasing utility; later units yield constant utility. Only after some time do further units begin to yield diminishing utility. This stage continues for a long time. It is said, for example, that when a man is hungry and he takes the first *poori*, he derives some utility out of it. The utility of the second *poori* is not necessarily less than that of the first. It takes sometime for a man to reach the optimum point of satisfaction as regards every want of his. The anticipated pleasure begins even before the actual consumption begins. When the optimum point is reached and consumption is still continued, the utility of further increments no doubt begins to diminish. No hair splitting discussion is necessary on this point, nor is it necessary to disprove the observations in order to prove the truth of the law of diminishing utility. Suffice it to say that if such changes are produced in the mind of the consumer they only add to our knowledge of the exact working of the law. After some time, at least, utility of successive increments does begin to diminish.

It is sometimes said that the utility of the second shoe, in a pair of shoes, is much greater than that of the first; or that the utility of the second piece of coal is greater than that of the first, ~~and that of the third is greater than that of the second, and so on,~~ till the quantity of coal becomes enough to be utilised by a certain individual. Such illustrations really miss the point, and they are not very helpful to those who give them. There should be a certain fixed unit of a commodity, to start with. A pair of shoes is one unit; so it is wrong to start with one shoe. In the same way there should be a definite unit of every thing. In the case of coal it should not be less than a seer. In the case of wood fuel it should not be less than, say, 20 seers or one maund. There is no advantage in beginning with a single grain of wheat

and then try to prove that the utilities of the succeeding grains are not lower but constant or increasing.

Regarding articles of food or drink it may be conceded that utilities should begin to be measured or taken into consideration after that point where according to Patten, pain economy ends and pleasure economy begins. That stage during which the consumption of an article only removes pain, is called pain economy by Patten; while that from where pleasure actually begins, is called pleasure economy. When a man is very hungry and begins to take food, the first two or three loaves of bread only contribute towards the removal of pain due to sharpness of appetite. After taking the first two or three loaves of bread, when the burning sensation in his stomach disappears, he finds himself at leisure to take stock of the situation and taste other things placed in the big dish before him. From that time onwards he begins to take actual pleasure which begins to diminish now with continued consumption. If this distinction between pain and pleasure economy is accepted, then utility does not increase with succeeding loaves of bread because till the stage of pain economy passes we do not take into consideration the utility derived, because no positive addition begins till the end of this stage. What takes place is a reduction of pain which means a reduction of negative quantity. The positive addition begins only with the beginning of the stage of pleasure economy.

Sometimes it is said that the utility of telephone connections increases with the increase in the number of connections in a particular town. When there are only eight or ten connections the utility of each is very small but when the number in the city increases to say 500 or a 1000 or a larger number, the utility goes on increasing. This is however entirely misinterpreting the law of diminishing utility. Not all these telephonic connections are secured by one single individual. If it were so the law of diminishing utility would certainly hold good in this case as in other cases. If more than one connection is taken in the same house, the utility of the second connection must diminish definitely as compared to the first, and that of the third will likewise diminish as compared to the second.

It is also said that the more wine a person drinks, the greater is his desire to have more of it; its utility, therefore, does not diminish with an increase in his consumption of it. As a matter of fact, the behaviour of those who are accustomed to drinking should never be taken seriously, especially at a time when they are under the influence of drink. They are not in their senses, whatever they do under the influence of wine should not be taken seriously by people of sane minds. Whether the additional units give them more utility or less,

becomes evident from the fact that soon after they lose their consciousness entirely.

It is no doubt right that the virtue of cleanliness and the vice of drunkenness always grow upon what they feed; but we have to remember, all the while, that the man does not remain the same as he was in the beginning. His tastes, and ideas go on changing with the change of time. This important aspect has also to be kept under consideration.

So the law, as explained above, is of universal application, not only from the point of view of individuals, time and place in economic spheres, but also as regards non-economic spheres. When a man has no child, his desire for one is intense. When he begins to have them his desire for more begins to diminish. If a person has seven sons, although he will be loving all of them equally well, yet he will not be particularly anxious to have an eighth son. But if he has not a single daughter, his desire for one will be greater, perhaps, than that for an eighth son. So it is not only in economic spheres that the law applies, but it pertains to the general mentality of human beings.

The Case of money. Applying the law to the case of money we find that it operates with actual force here also. It is said that the desire for money is never satisfied. It is right as far as it goes, but there is another aspect of this point, namely that a poor person has a very great desire and utility for money than a rich man. If a pice is lost by a poor man he will search for it for hours together; but if a rich man loses a rupee, he will simply look once or twice this way or that way. If he happens to locate it, he will take it up, but he will not condescend to come down from his carriage and search for a rupee on the road, not only because of the loss of prestige that may be involved on account of this course of action, but also because the number of rupees in his possession is so large that he does not mind losing one out of them.

And yet there are some cases where it is difficult to say that the law applies with equal force, as it does with reference to others. A miser, who does not make any use of his money, but simply goes on hoarding piles after piles in a dark room, or underneath the ground, takes increasing delight in the continuous growth of his accumulation. He takes out his money only once a year on the Diwali day, and casting a glance over it is highly pleased at the increasing amount of money in his possession. Even though this amount may continue to increase every year, yet his desire to possess or earn more, will not diminish but will go on increasing. This is why it is said

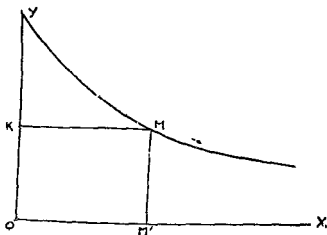
that the greed of a greedy person can never be satisfied. He wants money not for the sake of commodities which can be got in return for it. If it were so, he would not desire more money because what it would get in exchange might be plentiful in possession of the person. He simply gloats over the appearance of money and in this way satisfies his inner craving for gold and silver coins or bullion.

As mentioned in another connection, we, in Economics, are not concerned with persons like Robinson Crusoe, Sadhus and saints, those who live in lunatic asylums, those who are children or do not possess sufficient common sense. A greedy miser who simply gloats over his treasure and does not make or like to make any use of it, is certainly not a man with ordinary common sense. There are very few people of this nature in advanced economic communities of modern times. It may be admitted, however, that in India even to day the number of such greedy misers is not quite insignificant. In every village or town, some shopkeepers or moneylenders can be seen, who earn much but spend very little and their pleasure consists only in knowing that the amount of money in their possession is constantly increasing. What gives them pleasure is not the *enjoyment* of their wealth as its *possession*. Consequently, the larger the amount of money or wealth in their *possession* the greater is their satisfaction. If we take Rs 1,000 as a unit, the amount of satisfaction that such people derive from the successive units of their accumulation does not really diminish very soon or perhaps at any time. The utility of successive Rs 1,000 to a miser goes on increasing. After 99 such units the utility of the 100th unit, perhaps will be very large as this completes, Rs 1,00,000 in his possession which make him a Lakhpati, and then the cycle begins again. Leaving such cases aside we can say that the law of diminishing utility is one which is operative every where in human life, economic or otherwise.

Marginal Utility and Total Utility. Marginal utility means the satisfaction that a person derives from his consumption of that unit of the commodity after which he discontinues his consumption, and about which he was in considerable doubt whether it would be worth his while to continue up to that point. For example, a certain person at a particular time decides to purchase 8 mangoes for himself, or for his family. While purchasing mangoes he has in mind, on the one hand, the number of people in his family, and their tastes and inclinations for the fruit; and on the other the amount of money available for this purpose. Suppose he ultimately decides to purchase 8 mangoes. The eighth mango, in this case, constitutes his marginal purchase, and its utility to him is the marginal utility

Obviously, our purchaser of mangoes would certainly have purchased at least 2 mangoes even if the price were quite high; 4 if it were a little less; six if it were still less; but 8 at current price. Suppose the current price is one anna per mango. At this price he purchases 8 mangoes. If the price were 5 pice per mango, he would not have purchased more than 6; if 6 pice per mango, not more than 4; and if 2 annas per mango, he would not have purchased, perhaps, more than 2 mangoes. Now, in his estimation, the first 2 mangoes were worth at least 2 annas each, the next two $1\frac{1}{2}$ annas each, the third two $1\frac{1}{2}$ annas each while the last two not more than an anna each. If we were to add up all the utilities that he derived from his consumption of mangoes at this particular time the aggregate would be called total utility that he derived from his consumption of all the 8 mangoes. If we were to represent this utility in terms of money we might say that the first 2 mangoes yielded utility equal to 4 annas, the second two equal to 3 annas; the third two equal to 2 annas 6 pies, while the fourth two equal to 2 annas. The total utility as a matter of fact would go on increasing with an increase in purchases of a particular article as long as the marginal utility did not become zero. When it becomes a negative quantity total utility begins to grow less with further purchases.

The diagrammatic representation of total and marginal utility may again be given here. In the following diagram the total utility of the 8 mangoes is represented by the area $OM'MY$ while the marginal utility is represented by the line MM' .



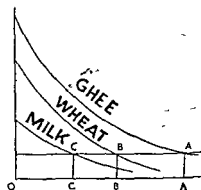
Law of Equi-Marginal Utility. This law is not difficult but it requires a close attention to understand it properly. It says that a person can derive the largest total benefit from his purchases of a number of articles, when the marginal utility of each article to him becomes equal. On account of the practical importance of this law we would like to explain it in fuller details.

We now know that the more of any commodity a person consumes, the smaller becomes the utility that he derives from the successive units of that commodity. We also understand from the explanation of total and marginal utility, that the total utility of a thing increases only up to the point of marginal utility. Before and after this point, the total utility is less. From this point of view it may be called the optimum point of utility. An illustration will make this point clear. Reverting to our previous illustration and diagram we find that the total utility to the person from his purchase of 8 mangoes is represented by 11 As. 6 Ps. when the marginal utility is 1 Anna. If he had stopped his purchases when the price was one anna and 3 pies per mango the total utility would have been represented by 9 As. 6 Ps. which is less than 11 As. 6 Ps. If, however, he had persisted in his purchases even after the number had reached 8; and if he had purchased another 2 mangoes at 9 pies each the additional utility derived would not have been equal to 1 Anna 6 pies, the cost of the two mangoes. This would have meant that on account of this purchase, the purchaser would not have added any utility but would have lost some part of it. If the cost or disutility is measured by 18 pies, the utility would be measured by say, only 12 pies. That was why he discontinued his purchases after he had purchased 8 mangoes, the last two at one anna each. So we find that the total utility goes on increasing till the point of marginal utility is reached, but after that it begins to decline. Therefore, if any body wants to derive maximum amount of utility from his various purchases he should obviously continue his purchases up to the margin in each case, so that the marginal utility to him of his last purchase of different articles may be equal.

If a man has, say, Rs. 400 at his disposal every month, he should distribute them over his various requirements in such a way that the utility of the last rupee spent over one requirements may be equal to that spent over another. Suppose he spends Rs. 45 over Ghee, Rs. 30 over wheat and Rs. 24 over milk. If he is a careful house holder, it would really mean that not a single rupee more or less can be spent on any of the three requirements mentioned above. Just as in the case of production the organiser distributes his resources over different factors and sub-factors of production in such a way that the

marginal productivity of every factor or sub-factor becomes the same, thus making that combination ideal; in the same way a house holder is expected to distribute his resources in the form of income, over different requirements of his in such a way that the marginal utility to him from the different items of expenditure may be exactly the same. If he succeeds in achieving this it means that like the organiser he has brought about an ideal proportion among the various articles of consumption which he needed during a particular month. This is the law of equi-marginal utility. It corresponds to the law of substitution. If we substitute the house holder for the organiser, and the various items of expenditure for different factors of production, we will find that there is no difference between this law of equi-marginal utility and the law of substitution. One operates in production the other in consumption. The graphical representation of the law of equi-marginal utility will perhaps elucidate the point further. In the following curve 3 utility curves, of ghee, wheat and milk are given.

If OA' amount is spent over Ghee the marginal utility is AA' ; if OB' amount is spent over wheat the marginal utility is BB' ; if OC' amount is spent over milk the marginal utility is CC' . We find that AA' , BB' , CC' are equal to one another. So it means that in order to make the proportion of money spent over these three items, namely ghee, wheat and milk ideal, the house holder should spend OA' amount of money over



Ghee, OB' over wheat and OC' over milk. The marginal utility of A' th amount of money spent over Ghee is equal to the marginal utility of B th amount of money spent over wheat which is also equal to C 'th amount of money spent over milk. If we put numerical values we may divide the line OX into equal parts and then find out the value of OA' , OB' and OC' .

The Law of Demand This law is also based on psychology. It is a statement based upon observation of a very simple nature. People like to have more of a commodity when the sacrifice that they have to make in order to secure it is small. If the sacrifice is great, they will not, ordinarily, like to have the same amount of the commodity as in the previous case. As money is on the one hand a measure of utility and on the other a measure of sacrifice, the law of demand can be stated thus:—

"The amount of commodity demanded increases with a fall in price and decreases with a rise in price." The law of demand is really a corollary of the law of diminishing utility. When utility diminishes, the price that a person is willing to pay for still more of the same commodity becomes less. This tendency of human nature is kept in mind by business men, monopolists, and those administrators of a country who have to deal with problems of taxation. If it is intended to sell a larger amount of a commodity the best way to do it is to lower its price. The monopolist also keeps in view this tendency of human mind while fixing the price of the monopolised commodity. The administrator while imposing a tax, keeps in mind the probable effect of the consequent rise in price upon the demand of people for this commodity. If it is intended to discourage the consumption of an article, the best way is to impose a tax upon it, and thus raise its price. If, however, the aim is to encourage its production, a bounty is given so that it may become possible for manufacturers to lower its price for consumers. So, the simple law of demand, which, in other words, is a simple tendency of human mind, is of great practical importance.

Elasticity of Demand. Although it is obvious that the amount demanded increases with a fall in price and diminishes with a rise in price, it is also a fact that the reaction of a rise or fall in price on demand is not uniform. In some cases a slight rise in price considerably affects the demand of people for a commodity. But sometimes even a considerable rise in price does not very much affect the demand for a thing. The demand which increases much with a fall in price and diminishes much with a rise in price is called elastic demand; while that which neither rises much with a fall, nor falls much with a rise in price is called inelastic or more correctly non-elastic demand.

Some of our wants are urgent, while others are less urgent. Those that are urgent *have* to be satisfied, even though the price demanded under certain circumstances may be a little high. There are other wants which are not so urgent in their nature. If there is a rise in price as regards any of them, there is no reason why a person should continue his demand for it. It can be postponed for a future date.

Demand for Necessaries, Comforts and Luxuries. People's demand for necessaries is less elastic than that for comforts and luxuries. Necessaries for existence cannot be avoided under any circumstances. During days of famines, or of any terrible happening, some of these wants even may not be satisfied for long intervals; but such conditions and states of existence are gradually becoming rare. Rather than go without the satisfaction of a necessary want, one would be prepared to spend as

much as he can afford at the time. The demand for necessities is, therefore, very inelastic. The demand for conventional necessities is also not easy to be postponed or avoided under certain circumstances. High prices are paid for the satisfaction of such wants, because there is very little option left to individuals. The demand for necessities for efficiency is not so inelastic as that for necessities for existence and conventional necessities, and is also not inelastic in those countries where standard of living is not high, and where people are not very well up. When people become so far accustomed to a certain standard of living that they are not prepared to give up their consumption of those things which they ordinarily consume, necessities for efficiency also assume the character of conventional necessities. But where standard of living is not a vital force, the demand for necessities of efficiency is more or less elastic. In India, for example, the demand for necessities of efficiency is elastic, except among members of higher and richer classes. Even in such classes it is not so because they realise the importance of efficiency, but only because the means at their disposal are very great and they do not mind spending money over certain things to which they have become accustomed, and which do not demand any appreciable amount of money.

The demand for certain luxuries of the rich is also inelastic. Diamonds, for example, are demanded not because of any benefit they confer but only because their possession confers a sort of distinction upon their owners. This distinction becomes all the more when the price of diamonds rises. For this reason the demand for them does not fall with a rise in their price but remains almost constant and sometimes even rises with a rise in the price. But the demand for diamonds of those classes which are just below the upper classes, and which could not afford to purchase them when the price was very high, increases when their price comes within their reach, and so for them it is elastic.

In general, therefore, the demand for commodities is inelastic for very high and very low prices, but it is elastic for medium prices. It should be remembered in this connection that articles which have very high prices are not purchased by the poorer or by the middle class people, but only by those whose means are very great, and who are very rich. When that is the case, high prices cannot have a very great effect upon very rich classes. Again, articles which have very low prices have also inelastic demand, because their prices are so low that a difference in them does not affect even those who are very poor, much less those who belong to the middle or upper classes. So only the demand for commodities of medium prices is generally elastic.

Other cases examined. The demand for commodities which are used for more than one use, is also elastic. If the price of

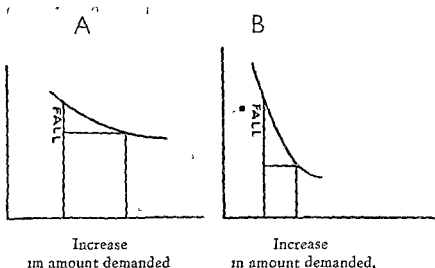
such a commodity rises, certain less necessary uses of it are given up. On the other hand, if its price falls, it begins to be used again for these purposes. Water, for example, can be used for a large variety of uses and so its demand is very elastic.

The demand for such articles which have substitutes is also elastic, because if their prices reach the level of the prices of those articles which can be used as substitutes for them, no one would like to pay higher prices but would begin to use the substitutes. However, if no substitutes are present, people will have to pay higher prices for the same.

As a general rule it may also be mentioned that the demand for commodities is more or less elastic in a country where there is not much difference in the incomes of individuals comprising that community; that is to say, if there is not very great inequality of incomes between different classes. Consequently, where middle classes predominate demand for commodities in general is usually more or less elastic. But in a community consisting of people with great diversity in incomes the demand is more or less inelastic. In such a community there are people who are either very rich or very poor. Those who are rich, have generally inelastic demand for many of the commodities. There are very few commodities whose prices are so high in the estimation of such people that a rise or fall in them may affect their purchases. So their demand is usually inelastic. On the other hand, on account of the presence in the community of very poor classes it is clear that a large number of articles would be beyond their power to purchase. Consequently any fall in their prices would not increase much their demand for them.

↪ A diagrammatic representation of an elastic and inelastic demand may be given below :—

The diagram A represents elastic demand. It shows that with a slight fall in the price of this commodity the amount demanded increases considerably; also with a slight rise in its price the demand falls considerably. In diagram B we find that even though the fall in price is considerable yet the amount demanded does not increase very appreciably. It may be pointed out as a general principle that if the curve is almost parallel to the axis of OX as in diagram A it should be regarded as the curve of a commodity with elastic demand. On the other hand, if the curve is more parallel to the vertical line as in diagram B it should be regarded as the curve representing inelastic demand.



Sometimes another distinction is made on a different basis. The elasticity of demand is taken to be equal to unity, greater than unity and smaller than unity. If with a rise or fall in the price of a commodity, the quantity demanded falls or rises in such a way that the amount spent over its purchase remains exactly the same, the elasticity of the thing is said to be unity. For example, if 500 articles are purchased when the price is Re 1, per article, but when the price becomes Rs 2 each, then 250 articles are purchased. In both cases the total amount spent upon the articles remains the same, namely, Rs, 500. Such cases are very rare. There are very few articles of daily use, perhaps none, which react so exactly to a rise in prices. The elasticity of money alone is said to be unity.

If the amount of money spent over a commodity becomes greater with a fall in its price but smaller with a rise in price, then the elasticity is said to be greater than unity. For example, reverting to our previous illustration, if with the fall in price of the article mentioned above from one rupee to 12 annas, 800 articles begin to be demanded, it would mean that the total amount spent over the commodity becomes Rs. 600. But if the price becomes Rs 1 4 as per article then only 380 articles are purchased, with the result that the total amount spent over the article becomes Rs 475, which is less than the original amount. Such a commodity is said to have an elastic demand. But if with a rise in the price of the commodity the total amount spent on it increases, while with a fall in its price it decreases the

elasticity is said to be less than unity. For example, if with a rise in the price of the commodity to Re 1 4as, as in our illustration, the amount demanded is 450, so that the total amount spent is Rs 562. 8as. But if the price falls to 12as, the demand is increased only by a slight extent, say to 600, and so the total amount spent is Rs 450. Such an elasticity of demand is said to be less than unity. It represents what is called in ordinary language an inelastic demand.

Importance of the notion of elasticity. The problem of elasticity and inelasticity of demand for different articles is of very great practical importance in Economics. A monopolist, while fixing the price of his commodity, has to keep in mind the fact whether the demand for the thing monopolised is elastic or inelastic, and to what extent it would react to a slight rise or fall in the price. A financial administrator while imposing a tax upon certain commodities, which ultimately results in the rise of price of such commodities, will carefully examine in the very beginning the nature of the demands of people for different commodities with a view to finding out to what extent they are elastic or inelastic. If the latter, he finds himself justified on financial grounds to impose a tax; if, however the demand is sharply elastic he will think twice before imposing a duty upon such goods.

Consumers' surplus Consumers' surplus is an abbreviated phrase for consumers' surplus of satisfaction. It means the satisfaction which a consumer derives from his purchase over and above that measured by its price. An illustration will make the point clear. We used to pay before the present war one anna for the daily paper, but most of us were prepared to pay something more than one anna rather than go without the paper. We have now to pay two annas for a paper of greatly reduced size. It can be said, therefore, that before the war we used to enjoy every day a consumer's surplus which if represented in terms of money was equal to one anna every day.

Instances can be multiplied. We have seldom to pay that price for a commodity which we are actually prepared to pay for it, rather than go without it. The present times that we are passing through, the days of serious inflation and so very high prices, are really abnormal; we get hardly any Consumers' surplus these days in our purchase. There is no question of a surplus of satisfaction, we get very little normal satisfaction even! In normal times however we get commodities for much less than what we would be prepared to pay for them. Take the case of salt, iron, food stuffs, postage stamps, fuel, coal or newspapers, and so on. In all these cases we find that there is really a great amount of surplus of satisfaction that we derive from our purchases of

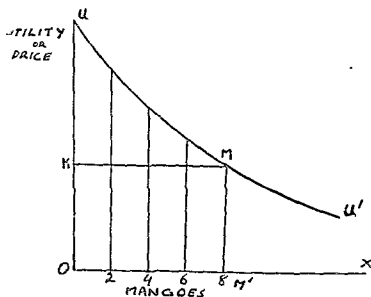
these things. We would be prepared to pay much higher prices for most of the articles mentioned above, rather than go without them. This excess in each case would measure our consumers surplus of satisfaction.

The notion of consumers' surplus is a real one, and it is not quite unsubstantial as has been supposed by some. There are, however, certain limitations and difficulties in measuring the amount of consumers' surplus, either of an individual or of a community. Why it is possible for us to derive consumers' surplus, is because of the environment in which we live. Every environment has got certain advantages of its own; but in some, advantages or conveniences far outweigh the disadvantages or inconveniences, especially to certain people of a particular bent of mind. When a man lives in a city, he can get many things much cheaper there, than if he were living in a small town or a village. For example, he can get electricity at a cheap rate which it is impossible for him to get in a small town, where there is no electric installation; he can enjoy radio in a big city; he can get daily paper early in the morning at quite a cheap rate; he can get ice during the summer and can have the advantages of a school or college education for his brothers or sons, which he cannot have in a small town. There are numerous other advantages which are available in a big city, but which are either not possible at all in a small town or are available only at a prohibitive cost. In this way he enjoys a very great amount of consumers' surplus while living in a city. If he were compelled to go and reside in a village, he would be deprived of a large amount of this surplus satisfaction. Even if he were prepared to spend a much larger amount of money than what he spent in the big city, he would not be able to enjoy nearly as many advantages as he did in the former place. It would not be wrong therefore, if it were said that by compelling this person to reside in a village, he has been deprived so to say of a large part of his income. Another way of expressing the same thing is by saying that an income of Rs. 400 per month, would give as much satisfaction to a certain individual residing in a big city as an income of Rs. 500 would give to a person residing in a village. Because while in the city there are ~~so many amenities of life, in a village there are practically none,~~ and so to continue his enjoyment in the old way the man will have to spend a larger amount of money in a village, and even then it may not be possible for him to enjoy all those amenities which he enjoyed in a city life. There may be more money at his disposal in a village, but there would not be the objects upon whom to spend the money. What could Robinson Crusoe do for example, with any amount of money at his disposal?

Nicholson criticising this aspect of consumers' surplus says, of what avail is it to say that £1,000 in England are equal to say

£10,000 in Africa? The answer that Marshall gives to this criticism is that it would certainly be of no avail if the statement were made in such an unqualified manner; but it would certainly be quite intelligible to say that £1,000 in England, together with the amenities of life that London presents might be equal to £10,000 in Africa without those amenities. There is then a great sense in saying that on account of the progress of society and due to the development of one's environments even the comparatively poor people can enjoy those amenities which are not possible for comparatively richer people who live in less favourable environments. A man with some education but very little means can daily read several papers and journals in a city public library. But in a village even a rich man cannot usually afford to purchase at his own expense such a large number of daily papers and periodicals.

Measurement of consumers' surplus. Although the notion of consumers' surplus is substantial, and not only of great theoretical importance but also of very great practical utility, it cannot be denied that it is not easy to measure it. Consumers' surplus is total utility minus total exchange value; that is to say the total utility that a person derives out of a certain thing minus the price that he pays for it. Representing the notion diagrammatically it may be expressed thus.



The total utility in the above diagram is measured by OM'MU while the total exchange value or price is measured by

the rectangle OM'MK. So, after deducting the total exchange value from the total utility, the triangular area represented by KMU is left behind. This area represents consumers' surplus.

Criticism of the notion Several questions arise at this stage. In the first place, it is said that consumers' surplus is as difficult to be measured as total utility. The total utility of a thing is, more or less, an uncertain quantity, because it is very difficult to determine the initial utility of many things. To find out how much we would be prepared to pay for a certain commodity, rather than go without it, is not an easy task. The initial utility of such things, as articles of diet, or drink, or, in short, necessities for existence, is almost impossible to determine. No one can say with definiteness how much he would be prepared to pay for the first loaf of bread, or the first cup of water, or the first room in a house, or the first piece of cloth for covering his body, rather than go without any of these. If it is said that a man would be willing to pay Rs. 100 for the first loaf of bread rather than go without it and lose his life, but he actually gets it for say, 6 pies, so he gets a consumer's surplus measured by Rs 99 As. 15 Ps. 6 only, the statement may be theoretically correct; but from a practical point of view it would not be very helpful. In this way even an ordinary labourer, earning Rs 10 per month may be said to enjoy consumers' surplus equal in value to, say, Rs 1,000 per month! It is against such idle calculations that Nicholson raised objections, mentioned above. So we should not take into consideration such commodities whose prices, in the initial stages, cannot be definitely determined. We should, therefore, not include necessities for existence when we want to form an idea of consumers' surplus enjoyed by an individual or a community.

The second point is that in the case of luxuries also consumers' surplus is unsubstantial. As a matter of fact, articles like diamonds are purchased only because they confer a sort of distinction upon the possessors thereof. The more costly they are the greater this distinction. More-over, there are certain articles of this description, whose presence is not enjoyed so much as their absence is felt. A dining suit, for example, especially during the summer, is not enjoyed, but its absence on any occasion might be felt by a certain person, because of his moving in high society. In all such cases, consumers' surplus should not be taken into consideration.

There is yet another point. There is a stage in the satisfaction of some of our wants when the presence of an article or its consumption does not really add to one's pleasure or satisfaction, but only removes dissatisfaction or pain. After a certain time, however, this stage is passed, and further use or consumption of the thing begins to give satisfaction and pleasure. The

first stage is referred to by some economists as 'pain economy'. The second stage is called by them 'pleasure economy'. They maintain that as long as the stage of 'pain economy' lasts, it is not proper to take into consideration consumers' surplus; because, when there is no *satisfaction* even, but only a gradual removal of dissatisfaction, there cannot be a *surplus of satisfaction*. So according to them consumers' surplus should begin to be measured only when the stage of 'pleasure economy' is reached. The argument, though queer is not entirely without a point

In order to measure consumers' surplus, therefore, we should not take into consideration necessities for existence and costly luxuries of the rich. We should also keep in view the point of 'pain economy' and 'pleasure economy' as discussed above. In short we should measure consumers' surplus only for those commodities which are of the nature of comforts, and whose initial price can be easily determined or assumed. We should also not forget that the effect of many of the benevolent activities of the state is to increase the share of the general public in the amenities of life, thus increasing their consumers' surplus. Public roads, public parks, public museums, and zoos, public libraries, free dispensaries, education facilities, and so on, all go to increase consumers' surplus of every one residing in such a country. Needless to say, the poor are much more benefitted by such activities of the state than the rich, because the latter possess independent means to enjoy any or all of these amenities even at their own expense. Lastly, it should not be forgotten that with money as a measure of utility or satisfaction, imperfect as it is, one cannot measure consumers' surplus with any amount of definiteness. Consumers' surplus in this respect is as unsubstantial as total utility.

Rise in price and consumers' surplus. When the price of an article rises in value for any reason whatsoever, the amount of consumers' surplus derived by people is reduced, and this creates an adverse effect upon their general welfare. On the other hand, when the price of an article of general consumption falls, the amount of consumers' surplus enjoyed by people increases, producing a favourable effect upon their general welfare. Accordingly, all those measures which are calculated to bring down the prices of articles of general consumption, are measures in the right direction. While granting a bounty on certain articles manufactured in a country, or imposing a tax upon certain articles imported into it, the effect that is likely to be produced on consumers' surplus should not be overlooked. By manipulating import duties and bounties carefully, it is possible to minimise the loss of consumers' surplus to the people. Also it is possible to so arrange things that articles that are usually consumed by the poor may become cheap, even though the prices of articles

consumed by the comparatively rich people may rise to some extent. Such measures become necessary to be adopted if the principle of the greatest good of the greatest number is constantly kept before one's view.

We read under monopolies that a monopolist in order to raise the maximum revenue from his monopoly tries to so adjust the price that the largest amount is sold at the highest price. Sometimes he reduces the output and so raises the price; at other times he increases the output and lowers the price. In each case his motive is to get for himself the largest income from his monopoly. But the monopolist is not absolutely free from certain restraints. There is public on the one hand, and the state on the other. The monopolist, therefore, cannot do everything according to his own sweet will. The state, especially, has an important duty to perform in this connection. It must form on the one hand, an idea of the amount of monopoly gain to the monopolists, and on the other, an idea of the loss of consumers' surplus to the consumers. If the gain to the monopolist is greater than the loss to the consumers the state may not interfere. If the gain to the monopolist is about equal to the loss to the consumers, the state should step in to protect the interest of the many as against only one or a very few. But if the gain to the monopolist is less than the loss to the consumers, the Government must take action at once and either deprive the monopolist of his monopolies or compel him to reduce the price to such an extent that the great discrepancy between his profits and the consumers' loss of consumers' surplus may disappear.

It is, no doubt very difficult under such circumstances to measure the two quantities accurately, and after comparing the two, arrive at an exact conclusion immediately. But even if exact measurements are not possible, shrewd and careful guesses by those who have been in such spheres for long, may fulfil the requirements of the situation.

➤ **Consumers surplus how affected by a tax or bounty.** A more important point of the like nature comes up before the taxing authority in a country when a tax is going to be imposed upon a commodity, or a bounty is meant to be granted. As mentioned before, a great amount of good can be done by careful Government Officials in-charge of recommending taxes and bounties, if the loss or gain of consumers' surplus after the imposition of a tax or a bounty is also kept in view.

Two general principles may be laid down. One is that a tax upon a commodity which is being produced under increasing returns or diminishing costs, generally results in a greater loss to the consumers of their surplus than in a gain to the state in the

form of the tax proceeds. The demand for such commodities is generally elastic. So, with a slight rise in price, the demand falls off considerably. The result is that the tax is collected really on a much smaller quantity of the article than consumed before the imposition of the tax; consequently, the loss to consumers of their surplus is much greater than the gain to the state; for upon that part of the consumption which remains after the tax, the state gains what the consumers lose; but upon that part of the consumption which is given up on account of a rise in price due to the imposition of the tax, the consumers lose their consumers' surplus, while the state does not earn anything. It is not, therefore, a sound policy to impose a tax on a commodity which is subject to increasing returns. The policy of the Government of India in imposing an excise duty on sugar, which is a commodity subject to diminishing costs or increasing returns, is open to grave objections on this scientific ground also.

The other principle, closely allied to the first, is that a tax upon a commodity subject to diminishing returns or increasing costs, generally results in a smaller loss of consumers' surplus than a gain to the state in the form of the tax proceeds. The reason is obvious. The demand for such articles is generally inelastic. For this reason, even after the imposition of the tax and the consequent rise in the price of the commodity, the demand does not fall off much. For this reason the gain to the state is considerable. If there is some reduction in the amount produced, due to a rise in the price, the cost of production diminishes, to that extent; because the commodity is subject to increasing costs. If more of it is produced, the cost will be low. So, it is regarded as a good policy by Governments to tax those articles that are produced under diminishing returns.

But one point may be placed before the scientific reader. Although there may not be much loss of consumers' surplus of satisfaction, as the amount demanded cannot fall much with rise in the price, because commodity is such that it must be purchased; yet, this very fact proves that there must be considerable suffering among people. They cannot give up consumption, because the commodity is urgent; and yet the price is raised by means of a tax!! This may be a sound financial policy, but it cannot be defended on ethical or humanitarian grounds. The salt tax is of this kind. It brings a large revenue to the Government, because its demand is more or less inelastic; but it cannot be denied that a high price of salt tells heavily upon the poor people who use salt in place of pulses and vegetables, and take loaves of bread only in accompaniment with salt. They must also purchase considerable quantities for the use of their cattle.

The Indian standard of living It does not require any elaborate argument to prove that the standard of living of Indians is very low as compared to that of other important nations of the world. There is, of course, no comparison between the standard of living of an average Indian and that of an average Englishman, or American; but our standard of living is much inferior even to that of other less important European and Asiatic people. The figures of consumption given below will throw some light on this question.

Annual average consumption per head

	<i>Great Britain</i>	<i>India</i>
Food	16 Bushels (56 lbs or 28 seer)	1 md.
Meat	120 lbs.	40 lbs.
Sugar	90 lbs	25 lbs.
Salt	75 lbs	13 lbs
Liquors	30 gallons	1/15 of gallon.
Tea	6½ lbs.	1/19 of a lb
Clothing	68 lbs.	12½ lbs.

The small amount of consumption of an average Indian as compared to that of an average Englishman is due to several causes. The peculiarity of climate has certainly much to do with the large amount of consumption of the Englishman; but poverty plays a very important part in this connection. India being admittedly the poorest country in the world, it is not surprising to find the standard of living of the people so low. Poverty and a low standard of living go side by side and practically mean the same thing.

Neglect of dietetics in India. It has been established after careful research that the best composition of food for Indians is the following

Grain diet	8 chataks	per day
Pulses or dal	2 chataks.	"
Vegetables	4 chataks	"

Meat is not considered suitable for Indians on account of the hot climate of the country. Also, it is not suitable for those who

do not take hard exercise. Vegetables, it is said, neutralise to a considerable extent the defects caused by the excess of starch in the Indian diet. About 2 chataks of fish or a couple of eggs or a few plantains supply the necessary quantity of proteins. The Japanese do not take more meat than the Indians; but their consumption of rice is almost twice as much, and they take three times as much fish and vegetables as an average Indian.

It is a regrettable feature that although systematic studies and researches are made by experts in dietetics in European countries regarding the best quality and quantity of diet for the people, no such attempt has ever been made, on a large and scientific scale, in our country. We do not know—even those of us who are well-to-do and want to have a nutritious diet—what would be the best and most efficient combination of diet. In different families, different articles are used at breakfast; and the same is the case at the time of two major meals. In recent years, some experiments have begun to be made in this direction, but no systematic attempt has been made to determine the cheapest, and, at the same time, the most useful combination of articles of diet suitable for people residing in different provinces. A common diet, however useful and efficient cannot be adopted in India, for the obvious reason that owing to differences of religion certain articles are forbidden to be used by some people. For this reason, there will have to be different articles for people of different provinces and following different religions. The task is not easy, but it is hoped that after the close of the present war and after the coming into effective power of a National Government this subject will receive proper attention.

Engel's law of Consumption The great German statistician, Engel, collected a large number of family budgets of different classes of people in Saxony in 1857. He arrived at certain conclusions on the basis of these family budgets. Although a long time has elapsed since he collected these budgets of consumption, and deduced from them certain principles, they are still largely applicable to present day conditions, with only very slight differences here and there. The table is given below :—

ITEMS OF EXPENDITURE

Items of Expenditure.	Proportions of the Expenditure of the family of		
	1. Workman with an In- come of £45 to £60 a year.	2. Workman with an In- come of £90 to £120	3. Middle class person with an income of £150 to £200.
1. Food only ...	62.0 %	55.0 %	50.0 %
2. Clothing ..	16.0 "	18.0 "	18.0 "
3. Lodging ..	12.0 "	12.0 "	12.0 "
4. Light and fuel ..	5.0 "	5.0 "	5.0 "
5. Education ..	2.0 "	3.0 "	5.5 "
6. Legal Protection .	1.0 "	2.0 "	3.0 "
7. Care of health ..	1.0 "	2.0 "	3.0 "
8. Comforts and recreation ..	1.0 "	2.5 "	3.5 "
Total	100.0 "	100.0 "	100.0 "

On the basis of the above figures he laid down the following general principles which are some times referred to as Engel's laws of consumption. "As the income of a family increases, the percentage of expenditure on food decreases, that on clothing, rent, fuel and light, remains, more or less, the same; and that on articles of comforts recreation, and on cultural wants increases" No other enquiry of this kind has ever been made in this country by any one except one by Major Jack, in the agricultural villages of Faridpur district in Bengal. While Engel divided society into working classes, middle classes and well-to-do classes. Major Jack classified these, primarily, into agricultural and non-agricultural classes, and then according to their circumstances into four economic classes :—

- (a) Persons living in comfort.
- (b) Persons living below comfort.
- (c) Persons living in indigence and
- (d) Persons living above indigence.

He arrives at the following conclusions which are based on his study of conditions as they existed before this war

Of agricultural families 55% are classified as living in comfort (with an income of Rs. 60 per head), 28% as living below comfort (with an income of Rs. 43 per head), 18% as living above want (with Rs. 31 per head) and 4% as living in want (with Rs. 27 per head). The total amount spent on food by families living in comfort is 58% of their incomes, while the amount spent by families in indigence is 60%

Of non-agricultural families 47% are classified as living in comforts (with an income of Rs. 80 per head), 27% as living below comfort (with Rs. 42 per head), 20% as living above want (with Rs. 31 per head) and 50% as living in want (with Rs. 24 per head).

Average income per head in India — There is very great difference of opinion regarding the exact figures of average annual income of Indians. Different people at different times have formed their own estimates regarding this point. These estimates differ widely from one another. Some of the results are given below :—

Dadabhai Noroji	1870	Rs. 20	per annum.
Digby	1898	Rs. 18. 9 as	"
Lord Curzon	1900	Rs. 30	"
Wadia and Joshi	1914	Rs. 44 5½ as.	"
K.T. Shah	1921	Rs. 67	"
Findlay Shirras	1922	Rs. 116	"

Even taking the highest estimate as correct, we find that the average income is not even Rs. 10 per month, while that of some other countries is as follows —

England	Rs. 660
America	Rs. 950
Germany	Rs. 400
France	Rs. 500

Is India getting poorer? The question is not easy to answer. Three different views have been expressed on this question. The first is by Messrs. Wadia and Joshi, who are of opinion that during the last 30 years there has not been any appreciable change in the economic conditions of the Indians, as a whole. The Government view is that there has been an appreciable improvement. According to them the average Indian to-day, eats better and more food, lives in a better house than his father, has better utensils and his family is more decently clad than ever

before. The third view is that the condition of the people has not only not improved during recent times, but has become actually worse. In the absence of reliable and correct statistics it is very difficult to form a definite opinion upon a subject which is so indefinite and vague. It appears, however, that while certain classes in India have certainly improved their economic condition to a considerable extent, and have, in consequence improved their standard of living a great deal, there are some classes, especially in our villages who have lost the major portion, if not the whole of their belongings, on account of indebtedness, and are now much worse off than they were about 25 or 30 years back. It should also be remembered that, with the advent of money economy in the villages, the cultivator has not fared very well, especially in the matter of the payment of revenue to the Government or rent to the zamindar. Also, if in certain cases there has been a slight rise in the standard, it has been neutralised by the growing number of mouths to be fed in a family. The growth of population is a very serious symptom in the Indian body politic. It threatens to neutralise all attempts of the well wishers of the country to raise the standard of living of the people, and to improve their economic condition. Unless the increase in population is rigorously checked there can be no hope of improving the economic position of India. What effect the present war will leave upon this country can be known only several years after its close.

Methods of spending in relation to satisfaction. The real aim of all expenditure is to get satisfaction. But expenditure may be wise or foolish, careful or thoughtless. The amount of satisfaction, therefore, that a person derives from his expenditure depends to a great extent upon how he spends his income.

It is necessary, in the first place, that he should so distribute his available resources over his various requirements that his expenditure on any one of these requirements may not become too much. If it becomes too much on one and too little on another, it would mean that he has not been able to make a judicious use of his money. His satisfaction, therefore, cannot be much as it might have been if he had taken greater care in distributing his resources over different items. Here he should keep in mind the law of equi-marginal utility.

Even if he distributes his resources in an ideal way, much depends upon the way in which he spends his money. There are some people who have no considerations of false prestige where the question of buying a commodity is concerned. If their better sense tells them that they are being asked to pay a higher price

than is really proper, they refuse to purchase the commodity from that person or place, but take further trouble and find out a place where they can get it at a fair price. Again, it makes much difference whether the commodity is purchased in large quantities or in small. There are some people who cannot buy articles for a full month in advance due to the fact that they get daily or weekly wages, and so really live from hand to mouth. As far as such people are concerned, they cannot get adequate satisfaction for the money they spend, because every time that they make a purchase, it is of a very minor amount. If a person purchases pulses worth 6 pies, flour worth 2 annas, fuel worth 6 pies, and so on, he cannot derive as much satisfaction out of his money as he otherwise could, if it were possible for him to purchase all his requirements at one time for the full month.

But there are people, who though not poor, are careless in matters of expenditure. They would go on purchasing 2 or even 3 packets of cigarettes every day, and yet would not purchase a bundle of 50 packets which they could get at a cheaper price. They would go on permitting the purchase of betels worth 8 as. or 12 as. per day, but would not order for the purchase of a *dhole* of betels which is really cheaper in the end.

There is also another point in this connection which, though of a minor nature from one point of view, is very important from the other. This is in connection with purchasing articles either on a cash basis or on credit. It has been observed frequently that those who purchase habitually on credit, and keep accounts with certain shopkeepers, do not get a good and full return of their money. They have not only to pay enhanced prices, as allowance has to be made by the shopkeeper for the delay and, perhaps, trouble in the ultimate realisation of the money, but the articles supplied to such customers are also not always of the best quality.

Present and Future uses. A person should not only distribute his resources as between different present requirements in an ideal way, but should also keep in view his future needs. There are certain emergencies that have to be provided for, and there are certain expenses which have to be incurred at a future date. If no allowance is made for them at the present time, it will not be possible for the person concerned to spend money out of the current income for the month when the expenditure on the item falls due. So, he should compare the marginal utility of his money not only as between different requirements at the present time, but also as between his present and future requirements. Human nature is so constituted that present requirements of a less urgent nature are given greater importance than future requirements of a more urgent nature. This is where we find a

distinction between far sighted and short sighted heads of families

Money spent over less durable articles does not give as much satisfaction, in the long run, as money spent over more durable ones. Indians, who are a poor people, prefer cheap articles, even though they may last for a very short time, to dearer ones, even though they may be very durable, and ultimately really the cheaper of the two. More durable buildings machineries and plants are the distinguishing characteristics of leading European countries and America, while in poor countries like India and China, much less durable goods are usually produced. The Japanese have very carefully studied the present psychology of Indians and that is why goods made in Japan command heavy sales in this country.

CHAPTER XXVII

PUBLIC FINANCE

Public Finance as old as Society. The science of Public Finance is really as old as society itself. From the commencement of ordered society, or State necessity began to be felt to find out ways and means to defray the expenses of the state and consequently to discover the sources of income. So, strictly speaking, there should not be much difference between the science of public finance and political economy. Political economy, as its name implies, refers to the activities of the state in regard to wealth, as distinguished from the activities of individuals in this connection.

Finance connotes both income and expenditure. The word public, is used as distinguished from private. The phrase 'public finance,' therefore, means the income and expenditure of the state, and so every other thing closely associated with both; hence the importance of public finance cannot be under-rated. With the growth in the importance of State functions, public finance has also increased in importance. A rich government can undertake and perform many duties which a poor Government cannot. Also, the political power of a country now a days rests almost entirely on its financial position. During the last great war, although Germany proved superior to any single State opposed to her, even superior to a combination of several states from the military point of view at least, yet, it was only on account of financial weakness towards the end that she was defeated. During the present war also much is going to depend upon the staying power of the various belligerents. It is here that the importance of America is relised by friends and foes alike. The strength, financial or otherwise, of a State is really the combined strength of the individuals composing it. If the people, that is, the subjects of the state, are rich, the state, is also correspondingly rich; but if the people themselves are poor, it is impossible for the state to become rich unless it is a sovereign State like Russia. So, it may be said that while the subjects make the State rich and strong, the State in its turn helps a great deal in making its subjects richer and stronger.

Difference between Public and Private Finance. There is an important difference between public and private finance. In the former, those items upon which money has to be spent are first settled and decided. After having finally settled such items of expenditure, and the corresponding amounts, the next business is to find out ways and means, so that the programme of expenditure laid down for the year may be satisfactorily carried out. If,

after taking stock of the available sources of income, and forming an estimate of the probable income that might accrue to the State during the following year, a certain amount of deficit remains it becomes the duty of the member in charge of finance to raise money, either by increasing taxation, or by raising a loan, and so remove deficit. The expenditure that has to be incurred is first taken as granted, and as a fixed quantity; the income is then adjusted to expenditure

In private finance, exactly the reverse is the case. Here, income is first taken for granted; it is usually either a fixed amount or, a more or less definite sum which falls to the lot of an individual. Keeping his eye on the amount of money or income available to himself during a period of time, a householder tries to adjust his expenditure to this available amount of income. If he finds that his expenditure shows a tendency to outstrip his income, he begins to curtail it here and there; in the end bringing it within the limits of his income. This is one important difference between public and private finance

The second difference is that if any surplus is left during the course of a year in the public funds, and is not spent, it is not regarded as a good policy. No amount of surplus should really be left unspent nor should any surplus really occur during any year. If there is a large surplus, it would mean that the member in charge could not form a correct estimate of the sources of income and the items of expenditure; or, that he did not spend as much as he ought to have spent; or, even, that he realised in the form of taxes or loans more than what was actually needed under the circumstances. In the case of private finance, a surplus is always highly welcome, whether it is due to an increase in income not expected before, or to an unexpected decrease in the expenditure. This surplus is either invested or otherwise utilised.

A third difference is that the finance member, however, clever he may be in matters of finance, and therefore in forecasting the future, can never be sure of the exact amount of his income and expenditure. A number of new and important problems come up before the Government, for solution, and any one of them is sometimes sufficient to upset all calculations of the person in charge of the country's finances. This uncertainty has still further increased in recent times. On account of the intimate connection between different countries of the world brought about by the development in the means of communication and transportation, affairs in one part of the world do not fail to influence those in others. Consequently, any panic or crisis in one does not leave the affairs of the other allied countries unaffected. In a short time, therefore, the malady, emanating from one country, spreads to the whole civilised world. Moreover, the

legacy left by the last Great War, in the form of reparations and war debts, though repudiated by the countries concerned after some time acted as Damocles' sword for a considerable time and brought about a great depreciation in the currencies of all the countries of the world, bringing down the whole world from a gold to a paper standard. Paper money can be much more easily issued and increased than metallic money. Moreover, since the period of inflation during and immediately after the last Great War, the issue of inconvertible paper money has been reduced almost to an art. The whole thing has now begun to be done in a deliberate way, and the rates of exchange between the local currency and foreign currencies are fixed after taking into consideration a number of factors. When such a thing is done by one country, other countries cannot remain unaffected. With a change in the rate of exchange, brought about deliberately, the whole trend of imports and exports of a country is seriously affected. When trade is disturbed on account of a cause, purely external, other sources of income like railways, income tax, import and export duties, and so on, are also seriously affected. How things will shape themselves after the present gigantic struggle cannot be prophesied at this stage.

In a country like India where the sources of income of the various Governments, Provincial or Central, are not very secure, there cannot be much certainty about public finance. The income from land revenue to the Provincial Governments depends almost entirely upon good rains, and so upon good crops. The income from railways to the Central Government also depends mainly upon whether famine conditions prevail in certain Provinces or they are normal. Public finance, therefore, is more or less a sort of gamble either in rains, or in railways or in currencies. Nothing of this sort is found in private finance. There is nothing uncertain or indefinite about it, except in very minor details. Marriages, births, deaths, sickness etc., are, even in private finance, more or less accidental, but a careful head of a family always makes a sufficient allowance for such contingencies.

The sources of income of the state are usually very elastic. Whenever, therefore, more funds are needed the sources can be stretched to such an extent that current needs are fully satisfied by increased amounts of income from them. Governments can first fix up the items of expenditure only because they feel sure that, if necessary, larger amounts may be realised from the same or other sources. This is not, however, the case in private finance. Here, sources of income are, more or less, inelastic. The items of expenditure are, on the other hand, quite elastic. So, if necessity arises they reduce their expenditure in order to make the two ends meet, not by increasing their income. We

find, therefore, that public finance and private finance differ from each other in certain very important respects.

Functions of Government. The theories regarding the functions of the State cover a wide range. At one extremity are the Anarchists who recommend the abolition of the State and the overthrow of the Government even by violence. They consider the State to be an evil. According to them it demoralises individuals, and unnecessarily tyrannises over them. They want the individual to be left entirely free, and believe that if that is done, the individual will develop to a large extent, and then there will be all round progress of the society. They expect each individual to develop his own individuality to such an extent that he may begin to understand perfectly well his own rights and responsibilities, so that there may not be any necessity for any outside authority to interfere between any two or more individuals. Each individual, when given perfect liberty of action, is supposed to be competent enough to protect his own rights, and also sensible enough to perform his own duties. If each individual develops himself to such an extent, no necessity remains for any outside authority. But, in the first place, this sort of individual development has never been possible before, nor does it appear to be possible at present. Moreover, even if that were possible in the majority of cases, there would still remain some people at least who would neither have a sense of responsibility nor any regard for the rights of others.

According to the individualistic or *Laissez faire* theory, the functions of the State should be as few as possible. The individualists agree with the anarchists in regarding the intervention of the state in the affairs of people as not quite desirable, but they do recognise its importance in the matter of looking after certain affairs of the society and of performing some functions which are very essential and fundamental and cannot be performed by any single individual or a mere combination, of individuals. They, however, regard every extension of the powers of the State as involving a corresponding diminution of the sphere of individual liberty. Their view in this respect does not differ very much from that of the Anarchists. They also seem to believe that the ideal form of Government is really no Government at all, and that the existence of Government, in any shape, is a sign of man's imperfection. According to the Individualists, the state exists merely because crime exists, and its main function therefore, should be only to protect and restrain. Individualists condemn public education; sanitary laws; laws regarding the conduct of trade and industries; pure food laws; and any legislation which tends to impose restrictions upon trade or industry, and interferes with the social or

moral habits of individuals. They say that the sole duty of the State in such matters is to leave them alone. A state according to them, should be nothing more than a police organisation, to enforce contracts, protect property, keep the peace, punish crimes and defend society against foreign aggression. When this is done, its functions are exhausted. This doctrine of *laissez faire* was developed in France at the time of the Physiocrats. It applied not only to the economic sphere but also to the political sphere. From the Physiocrats, the view passed on to Adam Smith, who, in 1776, gave a powerful stimulus to the doctrine by the publication of his book "Wealth of Nations". After him, many other economists and philosophers in England and on the Continent, supported this view, both in the political, as well as in the economic field.

Entirely opposed to the *laissez faire* theory of state functions is what is usually called the socialistic theory. Its supporters not only do not distrust the state, but regard it as a great and supreme good. They look up to it as children look up to their parents; and they expect as much care from the State as does a child from his parents. They think that it should look after the economic, moral and intellectual interests of the people. The socialists do not underrate the importance of individual liberty, but they suppose that it can be adequately maintained only through state action. But amongst socialists themselves there are different groups holding different views regarding the functions of the State. There are some who maintain that the key industries should be taken up for management and control by the State, while there are others who are of opinion that not only the key industries but all important industries and trade activities should also be taken up by the State from individuals; that is to say, they advocate collective ownership and management of all industries including land and capital, and the instruments of production and transportation. Under such a system the state would become the sole proprietor of land and other forms of wealth, and there would be no private property, nor any right of inheritance. This is also called collectivism by some.

With this great diversity in the views and theories regarding the functions of Government, it is not easy to select certain functions that should be performed by a State. There is, to begin with, no anarchical state in existence in the world to-day. The anarchists are present in every country of the world, but they have nowhere succeeded in destroying the State in the sense in which they wanted to destroy it. The old anarchists of Russia, the followers, that is to say, of Prince Kropotkin and Bakunin, have all merged themselves into the present Bolsheviks. They remained anarchists only as long as the Czarist Government

The Functions that are at present performed by the State in India are (1) Protection against other States, for which the Army the Navy and the Air force are needed. (2) Protection against internal disorders for which the maintenance of the Police is necessary (3) Protection of the rights of individuals or even the State itself, for which it is necessary to maintain Civil and Criminal Courts (4) Construction and maintenance of certain public works, and the performance of certain duties of a general type for the public. Under this head are included construction of roads, maintenance of parks, and museums etc; also starting of educational, sanitary and medical institutions, which are not within the means and competence of private individuals.

Apart from the above, the State now provides and regulates certain services which are necessary for the welfare of the people. It protects labourers against the employers, and has passed a number of laws protecting its interest and looking after its welfare in various ways. It is also an important duty of the Government to encourage industry and trade within the country, either by imposing import duties on foreign goods or by granting bounties on exports from the country. It also helps local industries in a number of ways and has also undertaken certain other businesses as State monopolies. The administration of Railways, Canals, Forests, Lands, Opium, Salt, and Excise are all carried on by the State under its direct supervision and control.

The Theory of Maximum Social Advantage. The rapid increase in the functions of the State has necessitated a large amount of expenditure on its part. For the due performance of these extended functions, it is necessary that the Government should have a command over large resources. Three ways are usually open to any Government for increasing its income.

- (1) By taxation.
- (2) By raising loans.
- (3) By earning profits through productive undertakings.

Loans. Of the above three means of increasing income, that of raising loans is not a very sound policy, except when the sum involved is very large and the purpose in view is of an urgent nature. If loans are raised within a country, the loss to the Government in the form of interest will be a gain to the capitalists or investors of the country. The national wealth, therefore, will not diminish, but may even increase if the proceeds of the loan are judiciously utilised. When such a loan is repaid, the amount remains in the country, and is almost always reinvested in fresh loans issued by the Government. There is, therefore, not much to be said against the policy of raising internal loans.

for productive purposes, except that it has a tendency to make the rich richer, and so it strengthens the foundations of capitalism.

But if a loan is raised in a foreign country, the policy is open to grave objections. The annual interest does not remain within the country, but has to be sent every year outside it, thus draining the resources of the country. And when time comes for the repayment of the loan, either a fresh loan has to be raised outside, or a great pressure has to be brought to bear upon the capacity of the local investors for both paying up the foreign loan, and satisfying the current needs of the country, as far as possible. Therefore the policy of raising loans in a foreign country is usually discouraged. It does not contribute in the least towards any social good, much less towards the greatest good of the greatest number.

Productive Enterprises. The other method open to a state for increasing its income is by starting productive enterprises on a commercial scale. If commercial undertakings are selected carefully, they can do a lot of good to people in general besides bringing large amounts of income to the State. The policy of Governments that start commercial undertakings is not guided solely with a view to earn large profits. They select only those enterprises which cannot be started by individual enterprise, or cannot work well if there is no single, unitary management. That is why various Governments have undertaken the construction and management of only such undertakings as railways, canals, roads, telephones, water supply posts and telegraphs etc. Profitable businesses like the manufacture of iron and steel, or cotton piece goods, or others of the same nature, are not undertaken by a State, as this course might bring it into direct competition with other manufacturers. If state socialism or collectivism is adopted as the guiding policy by a state, even such productive enterprises will come under its supervision or direct management; but the time is perhaps not yet ripe for such a drastic policy, and it is not yet certain whether this policy would really serve the best interests of common people. The productive enterprises or businesses and commercial undertakings that are at present under the control of various governments should be administered only with one single aim and idea, namely, that of doing maximum good to the maximum number in a society. It is for this reason that there is so much agitation in political India, for a reduction in land revenue, rates of interest, third class railway fares, and the cheapening of coarse cloth used by poorer people. These if carried out will do the greatest amount of good to the greatest number of people. That is the only sane, just, and sound policy for any Government to follow. The good of the proletariat or

the good of the farmers and labourers should always be kept in view by the high authorities of the State.

Taxation The third way of increasing income, namely, by taxation, while it opens, on the one hand, a very wide field before Finance Members of various Governments, affords a very great opportunity to do a lot of good to the people in the country on the other. It offers an opportunity to bring into actual operation the theory of the maximum social advantage. It is, however, a regrettable feature of public finance in most countries of the world, that the poor are really taxed more than the rich. This statement will sound strange at a time when there is so much talk of socialism throughout the world; but a close examination of the taxation system of the world as a whole will convince any careful student of Economics that the system, as it stands to day in many countries of the world, tells more heavily against the poor than against the rich. We will more minutely explain and discuss this statement at a later stage, but here we have only to say that by means of taxation the present inequalities of wealth can be removed to a great extent. Our society is so constituted that a certain person who has had an advantage of a start, rises very soon and very easily as compared to one who starts without any such advantage, or, under some handicap. There are no doubt instances where the heirs of large fortunes dissipate their money and become bankrupt, while those who start under great difficulties and hardships, rise to the top of financial success and fame. In the modern world such cases are not very rare, but still the general rule holds good that an initial start proves of very great help to every person. The result is that wealth, when it has once come into the possession of certain classes of people remains in circulation only among those classes, with some differences as to the individuals composing them; while those who do not belong to these favoured classes, continue to pass their lives in comparative hardship generation after generation. This great inequality between different classes can be reduced to a great extent, if not altogether removed, by a judicious use of the machinery of taxation; and only when this is done can the administration of a state be regarded as being carried on with a view to confer maximum social advantage.

Effect of the policy of non-intervention. The policy of *laissez faire* and non-intervention which continued to be adopted in its extreme form by leading European countries for about a 100 years, resulted in creating a great gulf between the two classes of people, the capitalists and the workers or the 'haves', and the 'havenots'. The sanctity of contracts was maintained without taking the trouble of finding out the conditions under which the contracts were entered into. The entire judiciary

of the State was influenced by the policy of non-interference, and they would not try to go beneath and behind the numerous contracts referred to them for final judgment. Consequently with a change in the outlook of the various Governments in the present century, and with a greater inclination towards the socialistic theories; it is also necessary that the civil laws of the country should also be changed in accordance with the changed spirit of the times; and those who are in charge of passing judgments over day to day affairs, should be permitted; even directed, not to be influenced very much by the mere appearance of a certain case, but to go beneath and behind every document before giving their final verdicts.

Sources of State income. Every writer on public finance has recommended his own classification of revenues or income of the State for general acceptance. Adam Smith was the first of the English economists to lay down such a classification. His division has now become antiquated on account of the great lapse of time since he flourished and the great change in the nature of the sources of Government revenues. German writers, and lately American writers, like Seligman, have given their own classifications; but they are with reference to the sources of income of their respective countries. The system of classification adopted by modern economists and financiers in England is quite simple, and as Indian financial affairs are controlled by English Finance Members, the same classification has also been adopted in this country. The classification given below is that recommended by Findlay Shirras in his book "Public Finance".

There are two main heads under which revenues of a country may be divided

(a) Tax revenue.

(b) Non-tax revenue

Under tax revenue are included such sources of income as land revenue, income tax, import and export duties and other direct or indirect taxes. In this classification, land revenue has been counted as a tax. If it is not regarded as a tax, but as income from Government property, then it should be transferred from this head to the other one, namely, non tax revenue. All taxes, whether direct or indirect, federal, provincial or local, are included under tax revenue.

The second great division is non-tax revenue. It includes (1) Revenue from Government or public undertakings. This includes railways, irrigation, other public works, posts and telegraphs, telephones, mints, stationery printing, etc. (2) Revenue from social service, for example, education, hospital fees, etc. (3) Revenue from loans or debt services (4) Miscellaneous. Under

the last head are included, in the case of India, military receipts, exchange, tribute from states etc.

In recent times social services have developed to a great extent on account of the development of local self government. The main source of revenue, however, is still taxation. Two-thirds of the revenue of India has been from taxation in normal times, and over 20% from Government undertakings. With the lapse of time, there is likely to be important changes in the percentage relations as between different sources of state income. With the increasing demand upon the revenues from different quarters, those in charge of state finances everywhere are trying to find out new sources of income. The limit of the taxable capacity of people in many countries of the world seems to have been already reached; and it is, perhaps, not possible to raise additional income by means of additional taxations. Attempts are, therefore, being made to introduce such changes in the functions of governments, so that their income may increase without imposing a heavier burden on the subjects. For this it is necessary that productive undertakings should be started wherever possible. There is very great scope for such increased activities in the domain of local self government; but even in higher spheres the scope is not very limited.

In England, income tax being the great engine of taxation, and the taxable capacity of the people being sufficiently high, and their civil and political sense sufficiently developed, there is not much difficulty in raising additional revenue, whenever required. It should also be borne in mind that England is a highly developed country. The amount of capital already invested in the country is very large; and although there is still a great scope for the investment of further capital, and will remain so perhaps for ever, yet, the more important needs of the country have already been adequately satisfied. For all these reasons it is neither very necessary to discover new sources of revenue to meet normal expenditure, nor is it very difficult to increase revenue during abnormal periods from the old sources. The present War has thrown England's financial machinery out of gear. It is to be seen how it is brought back to order.

But we are not concerned here so much with the financial position and requirements of other countries of the world as with those of India. Our country as mentioned in some other connection, is still an unexploited country. Large amounts of capital are needed to exploit her resources. Unfortunately, however, the country is very poor and the taxable capacity of the people has already been overstrained. Even today, India is, in proportion to her income, the most heavily taxed country in the world. Under these circumstances it is not easy to increase the

sources of income by the ordinary method of raising taxation. This is why so much importance is attached to Indian railways as a potential source of income to the Government of India, if they are carefully managed. During the present war, manufacturers and traders have earned large sums of money. It is expected, therefore, that there will not be much difficulty in raising capital or loans for productive purposes.

Public debt. When in a particular year it becomes difficult to balance the income and expenditure of a State, and the expenditure cannot easily be met even out of the increased proceeds of the existing sources of revenue; or, when a state of emergency suddenly arises for which a large amount of expenditure is absolutely essential, it becomes necessary to raise a loan. A loan is also raised for purposes of starting certain productive enterprises, which, in the end prove paying to the State, even after meeting the interest charges and the redemption cost of the debt. Loans are usually raised within the country itself unless that country is not in a position to meet the demand. It is for such reasons that public debts arise and have arisen in different countries of the world.

The public debt in England was only £1 million in 1689. From this small beginning it went on increasing. There was a sudden rise from £70 million in 1914, to £7481 million in 1919, when the last war came to a close. Gradually the debt went up to £8000 million. During the present war, however, it has reached great heights. By May 1944 it had gone up to £20,000 million!! By far the major portion of the English National Debt is unproductive, and was caused by the two great wars. A national debt, though it may not be as bad as when it is owed to foreign nations, is still bad enough. Succeeding generations continue to suffer, and bear hardships on account of the action of their predecessors. The bitter experience of the last war, and of the post war period has convinced financial authorities the world over that, as far as possible, the needs of the country should be met out of the yield of current income, but however sane this advice, and however noble this resolve it is impossible not to resort to loans during periods of great crises. The present war which does not as yet show any sign of coming to a close, has added staggering amounts to the warring countries' debts.

Hamilton's maxims In the matter of the administration of public debt the 12 maxims of Hamilton, the Scotch economist are incontrovertible, and are perhaps the best that have been ever laid down anywhere. They are given below.

(1) The annual income of a nation consists of the united produce of its agriculture, manufactures, and commerce. This

income is the source from which the inhabitants derive the necessities and comforts of life, distributed according to their stations in various proportions; and from which the public revenue necessary for internal administration, or for war, is raised.

(2) The percentage of national income, which can be appropriated to public purposes, and the possible amount of taxation are limited; and we are already far advanced to the utmost limit.

(3) The amount of the revenue, raised in time of peace ought to be greater than the expense of a peace establishment and the surplus ought to be applied to the discharge of debts contracted in former wars, or credited to a reserve as a resource for the expense of future wars.

(4) In times of wars, taxes may be raised to a greater height than can be borne easily in peace times; and the amount of additional taxes, together with the surplus of the peace establishment, should be applied for defraying the expenses of a war.

(5) The expense of modern war has been generally so great that the revenue raised within the year is not sufficient to defray it; hence the necessity of having recourse to the system of borrowing. The sum required to complete the public expenditure is borrowed on such terms as can be procured, and taxes are imposed for the payment of the interest; or perhaps to a greater extent with a view to the gradual extinction of the principal.

(6) In every year of war, where this system is adopted, the amount of the public debt is increased; and the total increase of debt during a war depends upon its duration and the annual excess of the expenditure above the revenue.

(7) In every year of peace the excess of the revenue above the expenditure ought to be applied to the discharge of the national debt, and the amount discharged during any period of peace, depends upon the length of its continuance, and the amount of the annual surplus.

(8) If the periods of war compared with those of peace, and the excess of the war expenditure compared with the annual savings during the peace establishment, be so related that more debt is contracted every year than is discharged in the succeeding peace, the consequence is a perpetual increase of debt; and the ultimate consequence must be an increase in its amount to a magnitude which the nation is unable to bear

(9) The only effectual remedies to this danger are the extension of the relative length of the periods of peace, frugality in

peace establishment, lessening the war expenses, and increase of taxes, whether permanent or levied during war.

(10) If the three former of these remedies prove inadequate, the last is left as our only resource. * By increasing war taxes, the sum required to be raised by loan is lessened. By increasing taxes in times of peace, the sum applicable to the discharge of debt is increased. These measures may be followed to such an extent that the savings in times of peace may be brought to an equality with the surplus expenditure in times of war, even on the supposition that the periods of their relative duration shall be the same for centuries to come that they have been for a century past.

(11) When taxation is carried to the extent mentioned above, the affairs of the nation will go on under the pressure of existing burdens, but without a continual accumulation of debt, which would terminate in bankruptcy. So long as taxation is below that standard, accumulation of debt advances, and it becomes more difficult to raise taxation to the proper height. If it should ever be carried beyond that standard, a gradual discharge of the existing burdens will be obtained, and these consequences will take place in the exact degree in which taxation falls short of, or exceeds the standard of average expenditure.

(12) The excess of revenue above expenditure is the only real sinking fund by which public debt can be discharged. The increase of the revenue and the diminution of expense are the only means by which this sinking fund can be enlarged, and its operation rendered more effective; all other schemes for discharging the national debt by sinking fund, operating by compound interest or in any other manner, unless so far as they are founded upon this principal, are illusory.

In this connection it may be mentioned that the scheme of sinking fund devised by Pitt towards the end of the 18th century for the purpose of paying off the public debt of England at the time, was in reality fallacious. The scheme was a very simple one. It meant the investment of a certain sum of money every year in the Government securities and reinvestment of the interest accruing upon it in further investments in the country. If this fund had been invested abroad, and the interest also invested every year in foreign countries then a large amount might have been available for paying off national debt. By depositing the amount within the country, the taxes to be imposed for the payment of interest and compound interest were overlooked; hence the fallacy which was pointed out by Hamilton.

CHAPTER XXVIII

TAXATION

Definition of a Tax: The term 'tax' has been variously defined by different authors. The best definition however, seems to be that given by Bastable in his "Public Finance". It runs as follows:—

"A tax is a compulsory contribution of the wealth of a person, or body of persons, for the services of the public powers". This is a comprehensive definition and covers all important points in connection with a tax, but almost every word in it has to be explained. A tax is defined as 'compulsory'. It does not necessarily mean that the person who is taxed is unwilling to pay the tax and so compulsion is to be resorted to, necessarily, in his case. What is implied is that the will of the payer really does not count; he may be willing or unwilling to pay this amount, but he will have to pay it, all the same. The amount of the tax, the manner of collection, and the time of payment, are all determined by the taxing authority. They do not consult the wishes of the payers. Any payment made by a person to the state in which there is no element of compulsion cannot be called a tax. Large amounts of money are voluntarily paid by private individuals to the Government for different purposes. They are, however, called gifts not taxes.

A tax is a 'contribution,' which means that it implies a certain amount of sacrifice on the part of the payer. It is possible that those who pay the tax may gain much by the activities of the State, rendered possible by taxation; but it does not mean that when the tax is paid there is no element of sacrifice. The gain accrues to the payers because of the activities of the State; but the sacrifice is all the while present, and is always involved in a tax.

The term "wealth" is to be taken in a wide sense. It should include not only commodities, as ordinarily understood but also services. Military service for example, or forced labour, wherever admissible, has an element of 'tax' in it, and is not much different from the payment of money or goods. Work for a certain number of days, which is to be performed by tenants for their landlord, is not much different from a tax payable in money or goods.

Then, taxes are imposed on 'persons'. Taxes, which are called commodity taxes, also fall on persons, but the distinction is merely that in the one case the basis of calculation is a certain

commodity which is specifically referred to, while in the other there is no specific mention.

The next point is that taxes are levied in order to perform service, or to confer benefit. The State has certain functions to perform, and for this some resources are absolutely essential. For the satisfaction of the wants of the State, taxation is necessary. Whether the amount so realised is spent rightly or wrongly, does not arise, just at present. This question is to be decided, finally, only by the state; or, in the last resort, by the general body of the electorate, which may even turn out a Government which utilises the proceeds of taxes in an unjust manner.

Finally, taxes are levied for 'public powers'. Public powers include the Central, Provincial and Local Governments. Even if a tax is realised by the smallest parish, or a village board, it is none the less, a tax in the strict and full sense of the term.

Other Characteristics Keeping the above definition and subsequent explanations of the important words in mind, certain other characteristics of a tax may also be mentioned. In the first place, a tax being of a compulsory nature, its non payment is clearly a crime, and is punishable according to the laws of the land. It is only on such occasions that the compulsory nature of a tax is clearly brought to the notice of the public. The state has to perform some very important and delicate functions, upon which the life and property of the subjects depend. If the amount of money needed for the performance of such important functions is not forthcoming, the whole machinery of the Government will be paralysed. The campaign of non-payment of taxes which was started in India immediately after the second Round Table Conference, was ruthlessly suppressed by the Government. If it had succeeded, the Government machinery would have been, at least partially, paralysed.

In the second place, a tax is not a fee or a price paid by the subjects to the State in return for a particular service performed by it. There is as a matter of fact, no direct or indirect connection between the amount of a tax paid by certain people and the benefit derived from the activities of the State. Taxes are paid only for the general benefit derived on account of the existence of an efficient state machinery. As Taussig says, the essence of a tax is the absence of the direct *quid pro quo* between the tax payer and the public authority. That is to say, there is no direct relation between the amount paid as a tax and the benefit derived from the State.

Another characteristic of a tax is that it adversely affects the monetary position of the payer. It cripples him to some extent/

and consequently reduces his purchasing power. If the rate of a tax is heavy, and consequently, a certain person has to pay a large amount of it, he will try to adopt ways and means in order to escape from this heavy taxation. Heavy taxation sometimes misses its object on account of the frequent evasions of the charge. If commodities are heavily taxed, they either begin to be smuggled for evading the duty or if the tax is rigorously and efficiently enforced, the consumption of the commodity is reduced or in certain circumstances altogether given up, and an alternative method of satisfying a particular need adopted.

Taxes as distinguished from Fees. Fees have been defined as payments, primarily in the public interest, for special services which people must accept, whether willingly or not. Fees have, therefore two characteristics; while taxes and prices have only one. Fees, while being primarily in the public interest, also confer special advantages on those who pay them. This is the case with registration fees, whether in the form of document or in the form of license. While taxes are imposed only in general interests, prices are charged in return for special benefits enjoyed by the payers. It is no doubt very difficult to make a clear distinction between taxes and fees. Seligman is of opinion that where the licensee gets a special benefit for the privilege, it is a fee, but where the license fee is so high as to bring in a net revenue to the public authority, it is a tax, as the amount that is charged is much in excess of the cost of service.

Fees and prices are both voluntary payments. There is no compulsion about them, but in all cases where the amount of fees or prices charged, either by a government or a monopolist, is much in excess of the cost of the service or the cost of the production of the commodity, there is, undoubtedly an element of tax in both. The price of salt charged by the Government of India, certainly contains an element of tax. Postal rates, water rates and telegraph rates differ from prices in as much as they are charged not by private sellers or companies in the ordinary way but by Governments, Central or Local. Otherwise they are similar, being charged not for services performed but for commodities sold to the people.

Tax Systems. When an ordered Society or a State comes into existence, and powers are acquired to compel subjects to pay contributions in the form of taxes, the next question that comes up for consideration before political authorities is establishing the basis on which the burden of total taxation is to be distributed over all subjects of the State. Various theories have been put forward in regard to this aspect of the question. One is the Single Tax Theory. In pursuance of this theory it is recommended that only one tax should be imposed which might be sufficient

in itself to satisfy all the requirements of the State in the matter of due performance of its various functions. Since the times of Physiocrats in France, land has been regarded as one such source of income. It was regarded by the Physiocrats as yielding a net yield, or, as they called *produit net*. This net product was supposed to be yielded only by land. Later on it began to be called rent. Consequently, since the time of the Physiocrats, the land has been regarded as the only fruitful source of income which could satisfy all the requirements of the State. Henry George, in America also recommended this Single Tax and there is no doubt that unearned increment from land, if properly assessed, and carefully collected from people can be large enough to make realisations from other taxes more or less unnecessary. But there are many practical difficulties in the way of assessing and collecting it; and it is also not regarded as a sound financial policy to keep one's eggs only in a single basket. If, per chance, this single source somehow fails, or does not come up to the mark, the administration of the country would become impossible. Moreover, on grounds of equity and justice also, it is not considered proper to tax only one class of people, however large or rich, and to leave other classes almost untouched. For this reason the single tax theory has remained at all times an academic question merely, and has never been seriously taken up by practical financiers any where in the civilised world.

Directly opposed to the single tax system is that which is called the Multiple tax system. Arthur Young was its greatest exponent in his time. He said that the State confers benefits of one kind or the other upon each one of its subjects. A strong government makes it possible for every one to live in peace and perfect freedom, immune from any danger of a foreign invasion, and free from any fear of internal rebellion or riot. Apart from this, it confers a large number of other benefits upon every class of its subjects. It is, therefore, its duty so to apportion the burden of taxes upon the subjects that the burden upon each may be uniformly light. There is undoubtedly much force in this argument. It is an accepted policy of those in charge of finances that each class of the subjects of a State should contribute towards its expenses as far as possible according to its capacity. But to say this does not imply that the number of taxes should be unduly multiplied, even though the yield from each individual tax may be very small. It is not only the proceeds of a particular tax that should be taken into consideration, but attention should also be paid to the cost of collection of each tax. If the number of taxes is unnecessarily and unduly large the cost of collection will also become proportionately high. The result of this policy will be that while the subjects will have to pay large sums of money from their pockets, a substantial portion of this amount, will not reach the coffers of the state but will remain with the

middle men, as the expenses of collection. In answer to this it is said that if some portion of the cost of collection does not reach the State, but remains with the subjects who are engaged in this collection, it gives employment to a large number of people. This argument is not very appealing. Giving employment to a large number of people by allotting to them no other task than collecting taxes from their fellow subjects shows utter bankruptcy of any well ordered economic programme. The Multiple Tax system, as recommended by Arthur Young, has therefore not been adopted by any Government.

There is a third system called the Plural Tax System. Under it certain taxes are selected with a view to ensure that almost every class of society contributes a fair proportion of its income towards the expenditure of the State. It is a sort of compromise between the Single Tax System and the Multiple Tax System. The number of taxes that is selected is such that the yield of each is quite considerable. Reliance is not placed upon the yield of one tax alone, but each of these taxes yields a considerable amount of money, with the result that the total amount so collected becomes sufficient to defray the expenses of the State. The Plural Tax System is at present in vogue in all important countries of the world.

Theories of Taxation. Although it is the duty of every subject of the State to contribute towards its expenses and although the right of the State to tax its subjects has been recognised by all, yet, before imposing any single tax, it is considered advisable to base a tax upon any principle, and some justification is also sought to be discovered for the imposition of this compulsory contribution. With this object in view, several theories of taxation have been advanced by people from time to time. One such theory is known as the benefit theory of taxation.

Benefit Theory. Taxes, it is said by the exponents of this theory, should be imposed on people in proportion, as far as possible, to the benefit that they derive from the State. The basis is simple enough, and appears just and equitable. The rich, it is said, derive greater benefit in the way of protection from the State, because they have a large amount of wealth and property to protect against foreign invasion or internal disorders. It is, therefore, recommended that the rich should contribute more towards the expenses of the State than the poor, who, having not much, do not derive a large amount of benefit from the State. For some time the benefit theory remained in favour, but later on it was subjected to a number of criticisms and it became untenable. It was contended that the greatest amount of benefit under the State was really derived by the poor. The widows, the orphans, and the poor people, who had no

strength, power or organisation of their own, depended for their protection and the enjoyment of whatever they possessed, mainly on the State. The rich, on the other hand, could adopt measures for their own protection even if the State did not come forward to protect them and their properties. A rich man could very well afford to employ a Chaukidar to keep a watch over his house during the nights, and employ any number of servants to look after and protect his wealth and property. He could keep iron safes and could secure any number of licences for weapons. Those, however, who were comparatively weak and poor could not afford to employ any such means for their protection. If there were no Police and Civil and Criminal Courts, the strong would not long hesitate to deprive the weak of whatever they possessed. So, according to the benefit theory, the poor should be taxed more heavily than the rich! There was great force in this criticism, and so the benefit theory of taxation fell into disrepute.

Faculty Theory of Taxation. The next theory that came into favour and gradually began to be adopted by different countries was the Faculty Theory. According to this theory it was held to be the duty of every subject to contribute towards the expenses of the State to the extent that it was possible for him to do. From each one was to be realised as much as he was able to contribute. Rich men, therefore, were to be taxed more heavily, not because they derived a greater benefit than the poor people, but because they possessed a greater faculty or ability to contribute than did the poor. According to the theory, the poorest classes were to be entirely exempted from taxation, because they did not possess any ability or faculty to pay any tax. As a logical sequence of the ability theory, progression has been introduced in modern times in taxation rates. Even amongst the privileged classes of rich people, there are different grades. Some are rich, others richer, and some fabulously rich. These different classes of people, with different incomes, should not obviously be taxed at the same rate. If the rich are taxed at a particular rate, the richer should be taxed at a higher rate, while those who are very rich should be taxed at a still higher rate. The progression, that is to say, increase in the rate of a tax, should continue with increase in the amount of income.

While in the case of rich people progressive rate of taxation has been introduced in the case of those classes which are poor, a certain amount of income is left untaxed; that is to say, below a certain income, no tax is levied. A certain minimum subsistence amount is left untaxed. In the case of income tax, all these principles are brought into practice.

Financial Theory. In spite of all that has been said above, it is obvious that the main concern of those who are in charge of

the finances of a country is to realise enough amount of money from the people for the purpose of defraying the expenses of the State, whether the money so realised conforms to the benefit theory or to the faculty theory or some other theory. The best maxim to be followed by taxing authorities is 'to pluck the goose with the least possible squealing'. This means that the public should continue to be taxed as long as there is no vigorous protest from any where. The financial theory is, as a matter of fact the one that is mainly followed by financial authorities through out the civilised world. It can, therefore, be safely said that there is a great scope for modification in the kind of taxes that are at present popular with different Governments. They have become popular mainly owing to the fact that they afford a great amount of convenience in their collection, and that those from whom they are collected are easily approachable, and, perhaps, are not very vehement in their protests against the payment of the taxes. This does not mean that no regard is paid to the justice or otherwise of a tax. Serious attempts are sometimes made to distribute the burden of taxes as far as possible equally among different people, and for this reason they are distributed as widely as possible. But the financial theory, which is sometimes called the theory of convenience, is the one most widely adopted in modern times.

[Direct and Indirect Taxes] With a view to distribute the burden of taxation upon different subjects in the State as far as possible uniformly, taxes are divided into two main classes, direct and indirect. Direct taxes are mainly those that are meant to be collected from the richer classes of people; while indirect taxes are those whose object is primarily to tax the poor or the less well to do classes, in such a way that they may not feel the burden of the tax. A direct tax is one in which the tax payer is also intended to be the tax bearer. An indirect tax is one in which the tax payer is not intended to be the tax bearer. Income tax is collected from the person who is also expected to bear its burden. He cannot usually transfer it to some one else. Inheritance taxes or death duties are also direct taxes. Import duties, however, are indirect taxes. The duty is collected from importers, but it is actually to be borne by those who consume these imported commodities, as they have to pay the amount of the duty mixed up with its price.

People who have developed political consciousness to a sufficient extent, and who realise their civic and political responsibilities, prefer direct taxes. They want to know definitely the burden of taxation upon themselves, so that they may know where they stand. Direct taxes are also more popular in countries which are rich. Income tax is a direct tax, and is a great engine of taxation in England. Indirect taxes, however,

are more popular in those countries where people have not much political consciousness, and are also not well to do. In India, indirect taxes are favoured more than direct taxes.

The merits and defects of direct and indirect taxation. A direct tax can be collected conveniently without much cost; at the same time, each person knows exactly how much he has to pay. It educates the tax payer in regard to his responsibilities towards the State and enables him to take an intelligent interest in the affairs of the Government. When a person knows that he is paying a definite amount of money towards the expenses of the State, he begins to feel a sort of personal interest in the affairs of the Government of his country. It is wrong to say that a direct tax is not elastic. As a matter of fact it is highly elastic, except when there are many evasions, which begin to take place, no doubt, when the rate of taxation is increased enormously. However, with the increase in political consciousness of the people and with the growing vigilance of the taxing authorities, it is expected that the evasions would become less numerous than they are at present.

The weak points of a direct tax are the strong points of an indirect one. Indirect taxes are not felt by the payers to the same extent as are direct taxes and for this reason they do not cause them so much annoyance. When a tax is mixed up with the price of a commodity, it is not brought forcibly before one's mind. Therefore if the best tax is only that which is least felt, then an indirect tax is certainly the best. As mentioned above, it is possible to tax the poorer subjects in a country only by means of indirect taxes. Duties on consumption goods can touch each individual buyer, more or less. Whether more, or less, depends upon the amount of purchases by each. In countries where necessities are not exempted from duties, even the poorest of the poor have to make some contribution towards the expenses of the State. There is also great convenience in the collection of an indirect tax. In the form of a tax on commodities, it is collected at the time when a person is in the best position to pay it, namely, at a time when he is going to spend money in purchasing the commodity. Again, an indirect tax is in one sense a voluntary tax, although it may be regarded as a contradiction in terms. It is voluntary in the sense that it can be avoided if a person does not buy a commodity, which is subject to this sort of taxation. This is, however, only an academic point, as it is almost impossible for a person, however poor, to avoid a large number of the commodities which are taxed by modern states. Instead of calling it a merit of the indirect tax, it may be regarded as its defect; because, if it discourages the consumption of certain necessary articles which are taxed, it would affect the efficiency of the poor consumers.

So, a very serious defect of an indirect tax is that it does not leave even the poorest people free from the burden of taxation. Articles of general consumption, like food grains and ordinary cloth, are consumed more by the poor than by the rich. For this reason it would not be wrong to say that the burden of taxation in modern fiscal systems is more upon the poor than upon the rich. However, if care is taken, and pains are not spared, it is possible so to arrange the dutiable articles of consumption that those which are consumed by the rich may be taxed at a higher rate, those consumed by the middle classes at a lower rate, while those predominantly consumed by the poorest classes may either be altogether exempted, or only nominally taxed. During the period of depression the yield from indirect taxes shrinks to a great extent, just as it grows in years of prosperity. The elasticity of indirect taxes is usually not large, as the amount consumed has a tendency to decline considerably with a rise in price. Reliance therefore, should not be placed on indirect taxes alone. The cost of collecting customs or octroi duties is also considerable, and this is another grave defect in all indirect taxes.

In a well regulated financial system, there should be a happy combination of both direct and indirect taxes, with a view, so far as possible, to derive advantage from the strong points of each, and avoid the disadvantage of both by judicious and careful handling of the problem.

Canons of Taxation Adam Smith, in his book 'Wealth of Nations', gave four celebrated maxims bearing upon the problem of taxation. These maxims have now become classic. No study of public finance is complete without a discussion and explanation of these maxims, now called canons of taxation. We are not concerned as to the extent that Adam Smith himself was responsible for laying them down. There are some who maintain that Adam Smith borrowed the idea from Physiocrats, or from certain French books written at the time, especially the memoirs by Moreau De Beaumont. Not are we concerned with the damaging criticism of certain American economists, especially Walker, who writes in his Political Economy as follows — "A vast deal of importance has been assigned by English Economists to these maxims. They are quoted over and over again, as if they contained truths of great moment; yet, if one examines them, he finds them, at the best, trivial; while the first and most famous cannot be subjected to the slightest test without going all to pieces." We only know that the canons laid down by the 'Father of Political Economy' have not yet been improved upon to any appreciable extent by modern writers. On account of the great passage of time, some modifications in emphasis have no doubt become necessary here and there; but they are enunciated in characteristic Smithian language, which is plain and therefore quite intelligible to common people.

(i) The first canon is that of Equality or Equity, which is worded thus by Adam Smith. "The subjects of every state ought to contribute towards the support of the Government, as nearly as possible in proportion to their respective ability; that is, in proportion to the revenue which they respectively enjoy under the protection of the State". This canon has a distinct ethical bearing. It is, however, not very clearly worded. It may either be regarded as supporting the benefit theory of taxation or the faculty or ability theory. In its modern interpretation, however, it is regarded as supporting the ability theory. By equality, it is now asserted, Adam Smith could not have meant equality of payment, but only equality of sacrifice. This equality of sacrifice is secured by introducing progression in the rate of taxation.

(ii) The second canon is that of Certainty, and is worded thus:—"The tax which each individual is required to pay should be certain and not arbitrary. The time of payment, the manner of payment and the quantity to be paid, should all be clear and plain to the contributor and every other person." This canon is quite clearly worded, and does not require any further explanation. Suffice it to say that, when the amount to be paid is definitely known both to the tax payer and the tax receiver, the one can meet it more easily, because to be 'forewarned is to be forearmed'; while the other can undertake liability for expenditure in the sure belief that a definite amount of the tax would be forthcoming in due course.

(iii) The canon of Convenience is as follows:—"Every tax should be levied at the time and in the manner in which it is most likely to be convenient for the contributor to pay it." This canon looks to the interest of the tax payers, in as much as, a tax is after all a compulsory contribution, and is not very agreeable to a vast majority of people who have to pay it. The principle of "stoppage at the source" is adopted both for the convenience of the taxing authorities as for that of the tax payers. A person is in the best position to pay a tax at the time when he comes into possession of money or property of any kind. Income tax is therefore realised at the time when pay is distributed to the employees, either by the Government or by other institutions. Inheritance taxes are realised at the time when the property of the deceased passes in to the hands of the heirs.

(iv) The last canon is that of Economy. It reads thus:—"Every tax ought to be so contrived as to take out and to keep out of the pockets of the people as little as possible over and above what it brings in public treasury of the State." This is also a very important maxim. The object is to reduce the cost of collection to as great an extent as possible. The purpose of a tax is to,

enable the State to defray certain expenses in connection with the performance of its functions. It is for this that subjects are required to make sacrifices. If the amount paid by the tax payers reaches the taxing authority only after a considerable deduction has been made from it on account of the cost of collection, it is something undesirable. The difference between the amount paid by the subject and that received by the taxing authority is rightly regarded as a sheer waste from the strictly financial point of view although from the national and genral point of view it may be said that this amount helps to support a number of people who are engaged in the collection of the tax.

These are the four canons of taxation laid down by Adam Smith. If any tax satisfies all these requirements, it is evidently a good tax. Recently however, two more canons have been added. One is the canon of Productiveness, which lays down that a good tax should be productive so that it may bring a large amount of revenue to the State. It is no use having a large number of taxes, each one bringing small amounts, and so not productive in the above sense. It is better to have only a few taxes, but each one of them should be fairly productive. Gladstone, it is said, attached very great importance to this aspect of taxation and this was one of the reasons why he became so successful as a financier. The other canon which has recently been added is that of Elasticity. It says that taxes selected by State authorities should be such that, if occasion arises large amounts may be realised from the same taxes by raising the rate. Looked at from this point of view, the income tax is a very elastic tax. During war time when the need for more money is ever present the Chancellor of the Exchequer can raise the rate of English income tax to 15s. or even more in the £1. In India also, when there has been a great need for money the rate of income tax has been raised, especially on high incomes.

Some Revenue Terms Defined. The Base of a tax is that upon which a tax is levied. It is not always the source from which a tax is paid. For example, a tax based on property is generally paid out of income, which either accrues from property or from some other source. A tax on income, however, is paid usually from the same income that forms its base. As a general rule it may be pointed out that direct taxes are almost called by the name of the base. Income tax is based on income; property tax is one that is based on property; poll tax is also based upon poll, head, and so on. Indirect taxes, however, are not named after their respective bases. The base is some times expressed in units of value, sometimes expressed in other units as yards, maunds, acres etc. When the base is expressed in terms of value, the tax is called an *ad valorem* Tax; when it is expressed in terms of some

other unit of measurement, it is called *specific*. Import duties, for example, may be either *ad valorem* or *specific*. If they are based upon the value of imported articles, they are *ad-valorem*; if based on gross or tons or certain other units, they are called *specific*.

The Rate is the amount of tax that falls upon each unit of the Base. It may be proportionate or disproportionate. When it is proportionate, the Rate is always in the same proportion to the Base, whether the latter be large or small. Disproportionate rates are those which vary with the Base. Indirect taxes are generally at proportionate Rates. Octroi duty, if fixed at the rate of say, 2 pice per rupee, is equally applicable on goods worth ten rupees or worth Rs 1,000.

Disproportionate Rates may be Progressive, Degressive, or Regressive. Progressive rates are those which go on increasing as the amount of the Base increases. They may be regular or irregular, according as they increase by some fixed mathematical ratio, or in a more or less arbitrary manner. There are very few really Progressive tax rates in actual practice. If the rates were strictly Progressive, a stage would certainly be reached when any further increment in the Base of the tax would be entirely confiscated by the taxing authority. This would defeat its own end, as the motive under such circumstances would not be financial, but either political or social. For this reason Progressive rates do not increase according to any fixed ratio, but are more or less arbitrary.

The most common and the most important kind of Progressive rate is that called Degressive. In this case the rate increases, but by an ever decreasing increment. Progressive rates are often graduated, that is to say, the rate increases by grades or stages, according as the Base remains within or goes beyond a certain fixed amount. Income tax is an illustration of a Progressive rate of the Degressive variety. When the amount of income has reached a certain limit the rate of tax does not increase after that, but remains fixed for all future incomes, even though they may increase to very high figure.

Incidence of Taxation. The Problem of the incidence of taxation is highly interesting, but at the same very complex. The real interest in a tax, centres round the question as to who ultimately bears its burden. The aim of the financial authorities is not merely to collect taxes, but also to see that those from whom they are collected are not unduly burdened, and certain others do not escape scot free from this burden. It is for this reason that the main interest in taxation lies in the study of its incidence.

As mentioned above, some taxes are direct, while others are indirect. As regards direct taxes, the intention of the taxing authority is that the tax payers should also bear the burden of the taxes. In the vast majority of cases it is difficult for a direct tax to be shifted to some one else, except in certain special circumstances which will be noted later on. Indirect taxes, however, are clearly intended to be shifted by those from whom they are originally collected, to others. Customs and excise duties are prominent instances of indirect taxes. They are, in the ordinary course, shifted to the consumers of these commodities, although in the beginning the tax is paid by those who import or produce them.

Income Tax. A closer study of a few important taxes will make certain points connected with the incidence of taxation clearer to the reader. Let us take for examination the tax on income. It is imposed upon the income of a certain person from various sources. In India agricultural incomes have been exempted from income tax, because the landlords have to pay land revenue to the Government; and double taxation has to be avoided. It is almost impossible for any person to shift this tax upon any other person. No one will, under ordinary circumstances bear the burden of another man's tax, if he can possibly avoid it. Therefore, even if a person who has to pay income tax may like to transfer this burden to other people's shoulders, they would not be simple or foolish enough to undertake another man's burden on their own shoulders without any rhyme or reason. However, there may be circumstances under which a person may find himself entirely under the influence or control of another. Under such conditions he may have to undertake any burden transferred by the stronger man to his shoulders.

Suppose, there is a village money lender who carries on the business of money lending in a village. His clients are all simple folk; and there being no other money lender, or any sort of banking agency, all have their accounts only with him. In a particular year, suppose the money lender is required to pay Rs. 100/- as income tax which he had never paid before, as he was never assessed by any other Income tax officers or by any authority of the District Board. Having had to pay the sum of Rs. 100/- as income tax, the money lender tries to find out ways and means to shift this burden to the shoulders of some other people. Not finding any other way possible, he raises the rate of interest that he used to charge from his clients by, say, 4 as % per month. If formerly he charged Rs 2 per cent per month from his village clients, he now begins to charge Rs 2-4 per cent per month. The clients, not finding any other money lender from whom to borrow money at the old rate of 2 p c per month,

and the demand being such that any postponement is out of the question, agree to pay the enhanced rate of interest. In this way the money lender assessed to income tax may recompense himself by shifting the burden to other men's shoulders.

Although the incidence of the income tax will be upon the borrowers of money in the village, and not upon the village money lender, it does not follow that he succeeds in *shifting* the tax upon the villagers. This cannot be called *shifting* in the strict sense of the term. The village people pay the enhanced interest only because the village money lender is in the position of a monopolist. If it were not so, that is to say, if there were more money lenders in the village, or some other banking agencies, like Agricultural Banks or Co-operative Credit Societies, the village people would not agree to the enhancement of the rate of interest. If instead of charging a higher rate of interest from his customers with a view to make up his loss, he were to reduce his expenditure by Rs. 100, by depriving his family members of some of their wants, would it be right to say that the incidence of the tax fell upon the family members? Perhaps not. So we are safe to conclude that income tax cannot be shifted to other people in the ordinary course.

Inheritance tax What holds good in the case of income tax, also holds good of inheritance taxes or death duties. When a young person inherits the property of his father, and has to pay a large amount of inheritance tax, he would like to recompense himself for this loss by enhancing the rents upon his tenants. He would not be able to do so unless the tenants were as helpless as were the clients of the village money lender. In each case, the shifting of the burden might become possible on account of the monopolistic powers of the money lender in the one case, and of the land lord in the other. An income tax, therefore, is a direct tax, pure and simple, and it is not possible to shift the burden on some other peoples' shoulders. The incidence remains upon those who pay the tax in the beginning.

Customs duties The case of customs duties is also very interesting, but not very easy to understand, unless close attention and concentrated thought are given to it. As a general rule customs duties are classed under indirect taxes. The import duty is paid by the importing merchant, but he collects it ultimately from customers in the form of enhanced prices. It begins to be regarded as an item in the cost of acquisition of the article in question by the importing merchant. The customer takes it for granted that the import duty would certainly be included in the price of the commodity. He does not raise any objection and pays the enhanced price without taking any serious notice of the fact. Sometimes, it may happen that, with the rise in the price

of a commodity, customers do not like to buy the same amount as before but discontinue or at least reduce their purchases of the commodity. Consequently, to the extent that the consumption of the commodity is given up, and a certain amount of goods remain unsold, the import duty will have to be borne by the importing merchant. If the demand for a commodity is elastic, there will be a considerable fall in its demand in consequence of a slight rise in its price. If the importing merchant does not want a fall in the demand, and thinks that with the old sales remaining unaffected he will be able to earn his normal profits, he may consider it advantageous not to try to shift the entire burden of the import duty upon the customers, but to bear some part of it himself, and only transfer the remaining part upon them. If this commodity has a substitute and the price of the taxed commodity becomes higher than the price of this substitute, no one would like to purchase it, but would purchase its substitute instead. Under such conditions, either the importing merchant will have to give up the business altogether, or he will have to bear some portion of the duty himself, and shift only a small part of the burden to other people's shoulders, so that the prices of the article may not come up to, and certainly not exceed, the price of the substitute.

We see therefore, that even import duties may fall, under certain circumstances, upon the same person from whom they are collected, and the importing merchant may not find himself in a position to transfer his burden to other people's shoulders.

The same principle holds good in the case of export duties as in that of import duties. If the commodities that a country exports to foreign countries are produced only in that country; that is to say, if one country has got a monopoly in the production of a certain commodity which it exports to other countries, and a certain export duty is imposed upon this article, the price of the exported article will be raised by the amount of the export duty. Therefore although it would be paid by the exporter in the beginning, it would be shifted to the consumers of the commodity. The incidence of this duty, therefore, will be upon the consumers of this article. If, however, this country is not the only country where this commodity is produced, but there are certain other countries also from where it can be obtained, then it will not be possible for the exporters of the commodity to shift the export duty to the consumers. Rather than pay the enhanced price, the consumers will begin to import it from those countries where the export duty is not imposed. So it may be said of the import and export duties that although as a general rule, they are shifted to consumers, there may be circumstances when it is not possible to shift them to others. Consequently, they will have to be borne by the importers in the one case, and the exporters in the other if it is intended to continue the import or export of this commodity.

House Tax. Let us examine the case of a house tax. The house tax is collected from house owners. If a person resides in the house, which he also owns, he cannot shift the tax upon any one else, and so he will have to bear it. If, however, he lets it out on rent to some one else, he will try to shift his burden to the shoulders of the tenant. In certain circumstances, it is possible for the owner of the house to shift this burden to the tenant, but under others it may not be possible. If the demand for houses in the neighbourhood is great, it will not be difficult for him to shift the house tax upon the tenant but if it is situated in a locality which is not very much patronised by people, and where a number of houses is already lying unoccupied, it will be very difficult, almost impossible, for him to shift it upon the tenants. When it is difficult to find tenants willing to pay even normal rents, it will become doubly difficult to realise from them enhanced rent which also includes the house tax. Under such circumstances, what happens is that the house owners who ordinarily would have charged a higher rent, charge only the usual rent so that the house may not remain unoccupied. They pay the house tax from their own pockets, and its incidence, therefore, is not upon the tenants but upon the owners themselves.

We conclude this part of the discussion by saying that no definite rule can be laid down as regards the incidence of taxation. It may be upon one class or the other. It may, however, be mentioned that a tax on commodities, other things being equal, is shifted from producers to consumers; while a tax on persons cannot ordinarily be so shifted.

Taxes on Monopolies. The incidence of a tax on monopolies presents certain very interesting features. Production under monopolistic conditions differs from that under competitive conditions in so far that in the former case the monopolist has a control over the supply of the commodity, and so can indirectly affect its demand and price; while in the latter case the commodity is produced under competitive conditions and no single producer has any control over its supply. When a tax is imposed upon a monopolised commodity, it may be imposed in several ways

A very simple case is when a tax is imposed upon a monopolist in a lump sum. A monopolist earns per annum a certain amount of monopoly profits. The Government impose a tax of Rs. 10 000 per annum in a lump sum on monopoly profits. If the income of the monopolist is Rs 100,000 the tax will be upon this monopoly revenue, which will thus be reduced to Rs. 90,000. It will not be possible for the monopolist to shift this tax upon the consumers for the obvious reason that he has already adopted the means whereby the monopoly gains may be the maximum. He has already adjusted the amount produced with reference to the

maximum price that he could realise from the customers. The imposition of a tax does not change any of these conditions; and therefore, he cannot make any change any where. So, he will have to pay Rs. 10 000 from his monopoly revenue, which will be reduced to that extent and the incidence of the tax will be entirely upon him.

The result will not be different if instead of a lump sum the amount of tax is fixed as a certain percentage of the monopolist's net revenue. This also will not introduce any change any where in his calculations except that a certain percentage of his net revenue will have to be paid by him to the Government, without any possibility of shifting it to his customers in the form of enhanced price.

There is, however, a third case in which it is possible for a monopolist to shift a part of his burden upon consumers of the monopolised commodity. If the tax is in proportion to his production, whether increasing with the amount produced or decreasing as the amount produced increases, it is obvious that new factors will be introduced in the calculation of the monopolist. If the tax is increased with the increase in the amount produced, he will certainly like to curtail the supply of his commodity. He will compare the loss of monopoly revenue caused by the curtailment in the amount produced with the gain in the form of a reduction in the tax due to his reduced production. On the other hand, if the tax decreases with the increase in his production, he will produce a large quantity of the commodity, thereby trying to save himself from the tax. He will, no doubt, compare the amount of the saving from the tax with the loss in his monopoly revenue. If the rate of the tax is very high, he will attach greater importance to the saving from the tax. On the other hand, if the rate is not heavy, but comparatively light he will continue to attach greater importance to his monopoly gains and will regard the tax as an additional item of expenditure.

There is another important point which should not be lost sight of while dealing with the problem of a tax on monopolies. It is not always that a monopolist adjusts his supply exactly in accordance with the needs of his maximum monopoly revenue. He does not generally carry things to such an extent, but stops sometimes sufficiently far short of that stage, either on account of the fear of public opinion, or for fear of Government action. If that is so, imposition of a tax will act as an inducement to revise his whole calculation, and to readjust his supply in such a way that the amount of the tax may also be shifted to the consumers of the article in the form of enhanced price. In such cases, a tax on monopolies can be shifted to consumers. Heavy taxation has

induced certain producers, who were producing formerly on competitive conditions, to combine together and form themselves into a trust. to coerce the consumers to pay higher prices in order to shift the burden of the enhanced rates of tax upon the general consumers of those articles. This has been done in Great Britain in recent years, where producers, smarting under heavy and new taxes, have combined among themselves in order to extract from the consumers high prices for their products.

CHAPTER XXIX

INDIAN FINANCE

Peculiarities. The problems of public finance in India are as difficult and complex as those in any other country of the world, but apart from this general observation it must be said that Indian finance has certain peculiarities of its own which are usually not met with in other countries. The extent and magnitude of the country is so vast that it has been aptly called a sub-continent than a country. Besides, it has certain other technical peculiarities, which require a brief discussion and explanation before ordinary problems are discussed and explained.

(1) **Home-charges or English-charges.** One has to remember that India is a dependency of England, and is largely an un-exploited and at the same time a poor country. She needed and still needs a large amount of capital for the full exploitation of her resources and for the construction of railways, canals, and other important public works. To meet some of these requirements she borrowed large amounts of capital from England, in the first place because she was intimately connected with this country, and in the second place, because England was an important credit supplying country to the world. Vast amounts of money were, consequently, borrowed by the Indian Government through the English Government. In return large amounts of money have had to be sent every year from India to England in payment of interest on capital borrowed for the construction of railways and other productive or unproductive purposes.

Large quantities of stores were also purchased by the Government of India from England for Railway and other departments. The payment made for railway stores is chargeable to railway revenues, but in any case, the money had to be sent from this country to England.

Then a large number of English men, civil and military serve in different capacities in the country, and after remaining here

for some time, retire after earning a pension. These people settle in England after retiring from India and their pensions have to be sent from here to England.

Also, a large number of British soldiers receive training in this country and serve here for a number of years. For the services of such regimental troops, and also for the services of the British navy in Indian waters, payment has to be made by India. The High Commissioner for India, who remains in England, has also to be paid from the Indian Exchequer and the money has to be sent to England.

The aggregate amount of money that had to be sent from India to England, in different connections mentioned above, used to be quite considerable. Before the commencement of the war it was about 30 million pounds per annum, which came to about Rs. 40 crores. The distribution of the English charges under various heads mentioned above used to be something like this—

*Interest on foreign capital including annuities	10,000,000
Army and Marine effective charges	8,000,000
Stores of all kinds	6 000,000
Pensions and gratuities	3,000,000
Miscellaneous	3,000,000
	<u>33,000,000</u>

These charges continued to invite vigorous comments from different quarters, and were like eyesores to Indians of national bent of mind. The knowledge of the fact that Rs. 40 crores had to be sent from India to England every year, while the country was actually starving and patiently waiting for the development of her resources pained them and told acutely on their nerves. They started their criticism from the phrase itself "Home charges". They said that it might behove an Englishman to call charges or payments made by India to England as 'Home Charges' because England is his home, but it did not sound well for an Indian to call such charges 'Home Charges'. For this reason the term English charges had begun to be used in many non-official writings for sometime.

The question of nomenclature was, however, a trivial affair. The charges whether called Home charges or English charges, had after all, to be paid every year. The more pertinent question was, whether they were a drain upon the country.

* The figures are only approximate.

The answer was obvious. To the extent that India got some thing in return for what was sent to England, the charges could not be called a drain upon the country. That amount of money which was borrowed for purposes of railway construction, should have been regarded as a productive investment. It should not be forgotten that if this money had not been borrowed in England, it would not have been possible for railways to be constructed in India for a considerable time. To the extent that extravagance in expenditure was permitted by authorities at the time of railway construction, it may be said that the capital borrowed was mis-spent and the interest that continued to be paid for so long on that part of capital was a drain. It is, however, no good entering into the history of this extravagance incurred in the construction of railways. A considerable amount of money was also sent by way of annuities against the purchase of railways by the Government of India. This was not a drain but only the payment of the price for a certain thing which was previously not ours but which was gradually becoming our own. As to the pensions sent to Indian civil and military officers it may be said that it was not a drain; although it would have been much better if these gentlemen had settled in the country where they spent a considerable portion of their lives and from where they earned their pension. Any way, this portion also of the English charges could not be called a drain. Then, about the expenses incurred by the Government of India over the British army and the British navy it may be said that on account of her connection with England India has not had to spend much over the navy and air force; consequently if a certain amount had to be paid every year on this account it should not have been grudged. In return for it she continued to get the protection of the powerful British navy. A reduction in the British units of the army would certainly reduce to some extent this expenditure, but the savings thus affected would not have been very material.

Lastly the amount that had to be paid for Store purchases, which included a large amount of railway material, was also in the nature of the price paid for certain commodities. In this connection it was insisted that railway material should not always have been purchased in England, but should have been procured by means of competitive tenders from the cheapest and best markets of the world. There was much force in this argument, and the Government of India had begun to consider the question seriously with a view to meet the criticism. It had begun to be expected that after some time the policy of the Government would change and that, as far as possible store purchases would be made inside the country. The present war has, however, brought about fundamental changes in the old state of things. These have been fully discussed in an appendix.

(2) **Capital expenditure.** Although large amounts of money have been spent by the Government of India in the past for the purpose of constructing railways and other productive works in the country, this process is not yet complete. The Government stand in need of large sums of money to be spent over such productive purposes. Consequently, loans will have to be raised, now and then either in the country itself, or even sometimes outside it. This is due to the fact that India is still in an undeveloped state, and there are many undertakings which are waiting to be developed on account of a scarcity of capital inside the country. As far as one can see, there does not appear to be any prospect of giving up the policy of capital expenditure adopted by the Government in the past; not is there any necessity to give it up. Care, however should be taken that, as far as practicable, money should be borrowed inside the country. With the establishment of National Government in India it is expected that there will be a great out-burst of constructive activity all over the country, and there will be, undoubtedly, a very great need for capital expenditure. Provincial loans will also have to be floated in larger numbers and for heavier amounts. The 15 year Bombay plan which has been given and discussed in a separate appendix gives an idea of the country's requirements in this respect.

(3) **Exchange operations.** There is another very important characteristic of Indian finance. England being on a sterling basis, while India on a rupee basis, it is necessary to fix up rate of exchange between the two countries, and after fixing it once, it is equally necessary to maintain it at that rate. For this purpose the Government of India and the Government of England act together, and a system has been evolved which was first known as the gold exchange standard, then the gold bullion standard, but now it may be called only the Rupee-sterling standard. As the Government of India had to remit large sums of money, viz English charges, to England every year, the system first adopted was that the Secretary of State in England sold council bills at a fixed ratio and met his requirements by the sale of these bills to those banks in England that wanted to accommodate their English customers who had to remit funds to India. This system has already been explained under Indian exchange and currency. If there arose any need for Indian debtors to send money abroad, or, which is nearer the point, for making payments abroad, the Government of India was approached for the sale of reverse councils. These reverse councils, too, were sold at a fixed rate. Between these fixed rates the exchange fluctuated, and transfer of money from one place to another continued to be affected. This system remained in force till 1926. After the recommendation of the Hilton Young Commission, the Government of India adopted a different

method of making payments to England. The system of the sale of council bills in England was discontinued, and that of the purchase of sterling bills in India upon England was adopted. This became an accepted feature of the exchange operations between the two countries and became known as the sterling purchase system. Competitive tenders were invited which were received usually on Wednesday simultaneously in Calcutta Madras Bombay and Karachi. It had certain advantages over the old system. It enabled Government to take advantage of a firm or rising exchange, and also enabled it to keep the rate of exchange from going above the fixed parity. When the rates were firm, and so advantageous to the Government of India, heavier purchases could be made. On the other hand, when the rate of exchange showed a weakening tendency, the purchase of sterling could be discontinued. In this way by regulating their purchases, the Government of India could also regulate the rate of exchange as between India and England, and violent fluctuations were thus avoided. This system also suited those exchange banks or other banks, that were engaged in financing foreign exchange transactions, in as much as they could get money immediately in India, and had not to wait for the re-discounting of their bills in London, as was necessary before this system came into operation.

Even this system was, however, not altogether free from defects. In the first place, as in the case of the sale of Council bills, it checked the inflow of gold; but the main defect was that it placed other countries which traded with India at a disadvantage and checked the foreign demand for rupees to manifest itself effectively in India. The war has brought in its wake new and quite unexpected problems. Now it is no longer the question of sending money from India to England that exercises the brains of Indian or English financiers. The case is just the reverse. This aspect has been fully discussed in a separate appendix under 'Sterling Balances'.

4. Agricultural seasons. The last peculiarity of Indian finance is that the country being mainly agricultural, her prosperity depends to a great extent upon a favourable monsoon resulting in good harvests. If rains fail, agricultural produce suffers in consequence, and the whole system receives a rude shock from top to bottom. With the failure of rains, the crops become very deficient, agricultural prices rise, and India does not remain a good market for other countries of the world. For this reason the export of agricultural articles receives a great check. With the falling of exports, imports also tend to decline, because, as is well known, exports pay for imports. With a decline in both, the export and import trade of the country suffers a great deal. The earnings from customs duties decline considerably; railway earnings also

fall, because the income of railways is derived more from goods traffic than from passenger traffic. The purchasing power of the people diminishes very largely, and trade and commerce inside the country also suffers in consequence. All those classes of people who depend directly or indirectly, upon agriculture, suffer more or less on account of this depression. The whole country thus comes within the grip of depression, the income of the Central Exchequer falls, and the whole outlook becomes uncertain and gloomy. The budget estimates of Indian finance members are often called 'gamble in rains.' Under such conditions it is not easy even for the cleverest finance minister to predict with any amount of certainty the course of events. In addition to other difficulties, to which finance ministers in every part of the world are subject, the Indian finance ministers have to grapple with the four additional difficulties or peculiarities which are the characteristic features of Indian finance.

A short history of Indian finance. Like the political history of India after the break up of the Mughal empire, and the period before the establishment of the British power in India on a permanent footing, the history of finance also has been of a highly chequered character. Even after the establishment of the British power a large number of experiments were made, from time to time, in order to place the finances of the country on a sound and sure footing. Great difficulty was experienced on account of the vast geographical extent of the country and great differences in local conditions from one province to another.

As long as Central Government in India was not established on a strong and permanent footing, the different presidencies that came one after another under the political domination of the East India company, were independent in matters of finance. They were free to impose taxes and to spend money according to their own needs, without any reference to any other authority. Before 1834, therefore, the three Presidencies were free in matters of finance; but in that year these powers were withdrawn from them, and public finance became centralised in the Government of India, which made grants to different provinces from time to time in accordance with the detailed estimates of their expenditure in different branches of administration. The effect of this centralisation was not very good. The different Provincial Governments lost all sense of responsibility, as was quite natural under the circumstances, and the interest of each was reduced only to get as much as possible from the central government, and then to spend it without any great regard for economy. The whole thing had a demoralising effect in provincial administration and personal influences began to be brought freely into operation in getting larger sums of money from year to year from the central Government. The more influential or the more clever

Governors usually succeeded in getting more money for the area under their jurisdiction, while those who were not so influential or clever had to remain satisfied with smaller amounts of money. This state of things continued till 1871, when, under the viceroyalty of Lord Mayo, the first attempt was made at decentralisation.

This decentralisation was carried out by the transfer to local Governments of certain heads of expenditure, like education, registration, jail, police, roads, public improvement etc. To meet the expenses under these heads, the receipts under the corresponding heads were first of all assigned by the central Government to the provincial Governments. In addition to this, a fixed grant was also made to cover the deficit, if any. Over and above all, the provincial Governments were authorised to utilise all extra revenues raised by them. This was decidedly an improvement over the conditions as they prevailed before 1871; but as the heads that were transferred were not at all elastic, certain other heads were transferred during the 5 year period from 1877 to 1882. The new heads thus transferred included excise, land revenues, stamps, law and justice and general administration. It was laid down that the question would be raised after every five years. The local Governments were encouraged to increase their revenues and reduce expenditure in order to improve their general financial position.

In 1897, which was the year when the last quinquennial revision took place the position of the provinces was some thing like this: They retained the total receipts from provincial rates, courts of law, jails, police, education, medical services, pension contributions and minor irrigation works, certain state railways and major irrigation work, buildings and roads, and stationery. They also got 50% of the stamp revenue, 50% of the assessed taxes from forests, 25% of excise and 35% of the land revenue.

To do away with the quinquennial settlements it was decided in 1904 to assign to the provincial governments, then known as local governments, more permanent shares in the divisible revenues in their territories. Accordingly, under the quasi-permanent settlement of 1904, the Government of India kept to themselves the whole of the revenue from opium, salt, customs, mint, railways, posts, and telegraphs and tributes from Native States; while registration fees and departmental receipts from police, education, law and justice were transferred exclusively to provincial governments. Land revenues, excise, stamps, income-tax and forests were divided between central and provincial governments in fixed proportions, generally half and half. Minor irrigation receipts became wholly provincial, as also income from

civil buildings. The divided heads contributed the bulk of the provincial revenues.

The semi permanent settlement of 1904 was subjected to a number of criticisms. It was pointed out that the system of divided heads did not conduce to the full development of provinces. Interests in such sources of income being divided, there could not be any whole hearted attempt to develop the heads. The system was also criticised as being inelastic. With no power of taxation to the provinces, and with the revenues more or less fixed, it was not possible for their growing needs to be adequately satisfied. Then, again the grants made by the Central Government were regarded more of an arbitrary character than based on any scientific grounds. For this reason there resulted a great deal of inequality in grants between different provinces. This created unnecessary provincial jealousies and did not help in the development of provincial amity. In the end it was suggested that provinces should be granted the right to borrow money and also to raise fresh taxation. The Decentralisation Commission that was appointed to go into this question did not make any recommendations for a change, and accordingly the Quasi Permanent Settlement of 1904 was made permanent in 1912.

Montford Reforms. This state of things lasted till 1919 when the Mont Ford Reforms were introduced. In virtue of these reforms the system of divided heads was given up. The most important divided heads, namely, land revenue, judicial stamps, excise and irrigation works, were wholly provincialised; while general stamps and income-tax were made central sources of revenue. Famine expenditure was also to be charged to the respective provinces. But as this arrangement was expected to result in a deficit of about fourteen crores of rupees to the central government, the report suggested that it should be made good by fixed contributions from the provinces. Under the Reforms of 1919 the provinces acquired the right of taxation as also the power of borrowing.

The Meston Committee The Secretary of State for India appointed a committee under the chairmanship of Sir James Meston, to advise the Government regarding the allocation of provincial contributions etc. This committee, as was expected from the very beginning of its appointment accepted the unsound principle of provincial contributions. General stamps, however, which were recommended to be placed under central revenues were provincialised. This committee recommended the following contributions for different provinces.

Madras	348 lakhs	Assam	15 lakhs
Punjab	175 lakhs	U. P.	240 lakhs

Burma	64 lakhs	Bengal	63 lakhs
Bombay	56 lakhs	C P.	22 lakhs

There were loud protests against these recommendations, especially from Madras, U. P. and the Punjab, which were heavily taxed, so to say, by the Central Government. Bombay and Bengal lodged a strong protest against the complete transference of the income tax revenue to Central Government. Agricultural provinces like Punjab and U. P., gained to a considerable extent by the transfer of Land revenue completely as a provincial head, but industrial provinces, like Bombay and Bengal, which contributed a large amount of the income-tax, had a just grievance against the transfer of income-tax revenue wholly to the Central Government. Some relief was, therefore granted to the various provinces in the budget of 1925-26, when the sum of Rs 250 lakhs was utilised to grant permanent remissions of contributions to four Provinces, as given below:—

Madras	Rs. 126 lakhs
Punjab	Rs. 61 lakhs
U P.	Rs. 56 lakhs
Burma	Rs. 7 lakhs
Total Rs.	Rs. 250 lakhs

The relief, although substantial, did not satisfy the Provinces, which wanted a complete relief from the highly unpopular contributions. The relief was granted to them in the year 1928-29, when provincial contributions were finally abolished. It may be mentioned in passing that the fixation of the rate of exchange at 1s 6d. to the rupee contributed largely to the total abolition of the contributions, as a higher rate of exchange enabled the Government of India to save a decent sum in its exchange transactions. The Provinces were however, still unsatisfied. The industrial Provinces especially, complained that they were unjustly deprived of a share in the income tax to which they contributed so largely. Other provinces complained that their sources of income were not elastic enough and so the provincial development had to be held in check on account of the paucity of funds. Then came the Simon Commission. It criticised the financial system as it prevailed at the time. Its main criticism was that although the theoretical ideal behind the Act of 1919 was that of Federal Finance, the provincial Governments were left only with inadequate sources of revenue and no power to interfere with the expenditure of the Central Government.

Further Inquiries into the Question. Sir Walter Layton discussed the question of Indian Finance thoroughly, and with great

ability, in the report of the Simon Commission. He suggested that (i) Some taxes should be collected at the centre and distributed among the Provinces according to the share of each in the total contributions of the tax. This suggestion was mainly with reference to income-tax. (ii) Some taxes should be collected at the centre and distributed to the provinces in proportion to the population of each. This was mainly with reference to such taxes as the salt tax, general excise etc. (iii) He also recommended a tax on agricultural incomes, terminal taxes and provincial surcharge on income-tax. The scheme, however, was not adopted, as it involved a loss of Rs. 12 crores to the Central exchequer and a fresh taxation of Rs. 24 crores to meet the provincial needs.

The Round Table Conference. At the Round Table Conference the question of Indian Finance was discussed threadbare. The Peel Committee was appointed to go into the question and it made certain recommendations. These recommendations were referred to the Federal Finance Committee presided over by Lord Percy after whom this committee is known. It recommended the division of income-tax between the federal and Provincial Governments on a certain basis. They also suggested the imposition of new taxes both for the Federal and Provincial Governments.

The White Paper published in 1933 contained the scheme of Federal Finance which was to come into force under the new constitution. This scheme was supported by the Joint Committee on Indian Constitutional Reforms which incorporated most of the proposals of the White Paper. The Provinces were authorised to impose taxes on agricultural incomes. These recommendations were incorporated in the Government of India Act, 1935. The list of Federal Taxes and Provincial taxes is given below.

Federal Taxes according to the Government of India Act, 1935.

Duties on customs, including export duties; duties on excise and on tobacco and other goods manufactured or produced in India except (i) alcoholic liquors for human consumption; (ii) opium, Indian hemp and other narcotic drugs and narcotics; non-narcotic drugs; (iii) medicinal and toilet preparations, containing alcohol or any substance included in (ii); corporation tax; salt tax; taxes on incomes other than agricultural incomes; taxes on the capital value of the assets exclusive of, agricultural land, of individuals and companies; taxes on the capital of the companies, duties in respect of succession to property other than agricultural land; the rates of stamp duty in respect of bills of exchange, cheques, promissory notes, bills of lading letters of credit, policies of insurance companies, proxies and receipts, terminal taxes on goods and passengers carried by railway or air and taxes on railway fares and freights.

Provincial taxes according to the Government of India Act, 1935 Land revenue, including the assessment and collection of revenue; duties or excise on the following goods manufactured or produced in the Province and countervailing duties at the same or lower rates on similar goods manufactured or produced elsewhere in India; (i) alcoholic liquors for human consumption; (ii) opium Indian hemp and other narcotic drugs and narcotics; non-narcotic drugs; (iii) medicinal and other toilet preparations containing alcohol or any substance included in (ii); taxes on agricultural incomes; taxes on lands and buildings, hearths and windows; duties in respect of succession to agricultural land; taxes on mineral rights, subject to any limitations imposed by any act of the Federal Legislature relating to mineral development, capitation taxes on professions, trades, callings and employments; taxes on animals and boats, taxes on the sale of goods and advertisements, cesses on the entertainments, amusements, betting and gambling, the rates of stamp duty, in respect of documents other than those specified in the provisions of the Federal Legislative List with regard to rates of stamp duty, dues on passengers and goods carried on inland waterways, tolls, fees in respect of any of the matters in this list, but not including fees taken in any court.

Sir Otto Niemeyer Report The Government of India Act 1935 only settled broad features of the future financial system of India. Sir Otto Niemeyer was accordingly appointed to make recommendations regarding the financial settlement between the centre and the provinces. The following is a summary of important recommendations made by him.

(i) Some Provinces would not be able to carry on without financial assistance from the Central Government after the introduction of the reforms. This amount of annual assistance required by different Provinces would be as follows —

N. W. F. P.	110 lakhs
Sindh	105 „
Bengal	75 „
Orissa	50 „
Assam	45 „
Behar	25 „
U. P.	25 „
C. P.	15 „

(ii) The financial assistance to different provinces mentioned above, was not to be given all in the form of cash. The following two measures were recommended to be adopted by the central authority in order to give relief in some cases,

(a) The increase in the provincial share of the export duty on jute by $12\frac{1}{2}$ per cent. This is calculated to give Bengal an additional revenue of Rs. 42 lakhs.

(b) In the case of Bengal, Behar, Assam, N. W. F. P., Orissa, and C. P., a part of the debts contracted from the Central Government before the 1st April 1936 were to be wiped off. This would mean a saving of interest in these Provinces and would give Bengal an assistance of Rs 33 lakhs annually. The award would work out as follows —

Province,	Amount of annual Assistance,	Saving on debt can- cellation.	Further re- venue from jute-export duty.	Cash grant from the Centre.
(IN LAKHS OF RUPEES)				
Bengal ...	75	33	42	Nil
Bihar ...	24.5	22	2.5	Nil
Central Provinces ...	15	15	Nil	Nil
Assam ...	48	15.5	2.5	30
N. W. F. P. ...	110	12	Nil	100
Orissa ...	50	9.5	0.5	40
Sind ...	105	Nil	Nil	105
United Provinces ...	25	Nil	Nil	25
Punjab, Madras, Bombay	Nil	Nil	Nil	Nil

(iii) The share of the income tax receipts to be distributed among the provinces was to be 50 per cent of the net amount available for such distribution. The percentage share of the 50 per cent portion of the income tax was to be distributed among various Provinces as follows —

Madras	15 per cent	Behar	10	"
Bombay	20 "	C. P.	5	"
Bengal	20 "	Assam	2	"
U. P.	15 "	N. W. F. P.	1	"
Punjab	8 "	Sind	2	"

The Niemeyer award was accepted in full on May 27, 1936, but as federation was not accepted by the country and also by many native states, the *status quo* was maintained as a consequence. Soon after the war broke out and the whole question of constitutional reform or change began to be discussed in an entirely new way. The angle of vision had completely changed in the meantime and people refused to be satisfied with anything short of complete independence and an altogether new constitution. The end of war may bring in its wake fundamental changes in Indian Constitution political and financial.

THE INDIAN PUBLIC DEBT.

Meaning—According to Dr. Dubey, "Public debt means the total amount of debt owed by the Public Authorities of a country, such as the Central or the Provincial Governments or Local Bodies, to their own citizens, or to foreigners in their individual or corporate capacities. Thus the public debt of India includes the sum total of obligations to investors in India or in England of the Central Government, the Provincial Governments, the Native States, and the local authorities such as the Presidency Corporations, port trusts, improvement trusts and others."*

The meaning of public debt as given above is too wide. As Dr. Dubey himself says later on, the Native States either do not borrow money in the way that the Central Government does, or if they do here and there, very little is known about their public borrowings. Regarding the borrowings of certain Presidency Corporations etc., it may be said that to include their borrowings in the total amount of Indian public debt and to disregard those of numerous other local bodies like Municipal and District Boards, which are scattered throughout the length and breadth of the country, will become inconsistent without being very illuminating. The direct borrowings of the Provincial Governments have also been very rare. It will be better, therefore, if we narrow down the meaning of the term public debt to borrowings made by the central public authority only, in a certain country, dealing with those of smaller authorities under other qualified heads.

In the present discussion, therefore, we will limit the application of the phrase Indian public debt, to the borrowings of the Government of India alone, either inside the country or outside.

A brief history of Indian Public Debt. The system of public borrowing was not known in India before its introduction in the country by the British East India Company. In ancient and mediaeval India, it was the duty of the ruler of a domain to keep the treasury full, and to withdraw money out of it in times of sudden emergency and on occasions when an unduly large amount of expenditure, which could not be met out of the current revenues, had to be unavoidably incurred. This tradition handed over to the Muslims by their Hindu predecessors, was strictly observed by the former, and in spite of the long and sometimes arduous struggles of the Mughals with their close or

**The Indian Public Debt.* By D. L. Dubey.

distant neighbours, the policy of public borrowing was not resorted to.

However, if a petty Rajah or a Nawab wanted money which his treasury could not provide at the moment, the sum was borrowed from Jagat Seths who represented the house of royal bankers and advanced money to high dignitaries and sometimes even to rulers of the domain. This amount was usually paid up very soon after the emergency was over, and was usually regarded as the first charge upon the income of the territory when normal conditions were restored.

The system of public borrowing was not prevalent in England and other European countries also, in the ancient and mediaeval periods. During the Crusades, the petty European potentates borrowed money from the Jews to wage the Holy Wars, but there was nothing like public borrowing. Money was kept in hoards or treasuries for utilisation in times of stress and sudden need. According to some authorities the system of public borrowing was first introduced by the state of Florence about 1344. Scattered sums of money owed to different individuals and institutions amounting to £600,000 were consolidated and converted into a public debt carrying interest at 5 p. c. and the shares were transferable in the same way as stocks are at present. Holland, however, evolved the system of public borrowing in a scientific manner. This was towards the end of the 17th century. Great Britain followed Holland in this as in many other things. Charles II had seized from London goldsmiths a sum of about £700,000. They went to court and litigation commenced. In 1688 the year of the Revolution, this amount, together with certain arrears, the whole amounting to one million pounds, was adjudicated. In 1689, therefore, the public debt of England was only one million pounds. It went on increasing steadily till upto the outbreak of the present war in 1939, it had gone upto about £8000 million. What new heights it will have touched by the time the present war is over no one can say. What is certain, however, is that the amount will reach stupendous figures.

In India, as mentioned in the beginning there was no public debt before the East India Company acquired political control over certain parts of the country. It is said that whenever there was any surplus of revenue from the administered territories over the yearly expenditure, it was utilised by the Directors of the Company or its other servants, in their commercial enterprises, but whenever there was any deficit, it was left over to be made up by future revenues, or allowed to stand and accumulate. In this way, by the year 1792, the amount of outstandings against the East India Company became £7 millions. This was the beginning of Indian public debt.

When once the principle was recognised, and sums began to be borrowed from wherever possible, the amount of public debt began to increase rapidly. From £7 million in 1792, it rose to £10 million in 1799. Then commenced the long series of wars under the regime of Lord Wellesley. By 1805 it became £21 million, and in the brief period of 2 years jumped up to £27 million in 1807. After the departure of this war-loving Governor General of India, the public debt remained stationary at the old figure of £27 million, but had risen to £30 million in 1829, the year when Lord William Bentinck arrived as Governor General in India. This peace loving administrator was perhaps the only one who, during the era of the East India Company, reduced the debt from £30 million to about £27 million in 1836.

After this commenced the Afghan Wars during the regime of Lord Auckland, with the result that by 1845 the debt rose to £45½ million. Then followed the annexation of Sindh by Lord Ellenborough and the Sikh Wars in the times of Lord Hardinge and Lord Dalhousie. The total debt of India rose to £55 million by 1850-51. In spite of the endeavours to reduce the debt during the times of Lord Dalhousie it rose to £59½ million in 1856, the last year of his administration. Then the Mutiny broke out in 1857 and in one year the debt increased from £59½ million to £69½ million.

The following table shows at a glance the steady rise in the Indian public debt from 1792 to 1857-58.

Year.	Total amount of debt		
1792	£7	Million	
1799	£10	"	
1805	£21	"	Lord Wellesley's Wars
1807	£27	"	"
1829	£30	"	Period of comparative peace.
1836	£27	"	Lord William Bentinck's administration.
1845	£45½	"	Afghan Wars
1850-51	£55	"	Annexation of Sindh and Sikh Wars.
1856	£59½	"	Period of Unrest
1857-58	£69½	"	The year of Mutiny.

The analysis of public debt given so far shows that upto 1857-58, at least, the debt increased not because of any productive expenditure but almost exclusively on account of Wars and also famine charges. The political connection of the East India Company with India ceased after 1857. Conditions as regards Indian public debt, however, did not improve. The whole

expenditure in connection with the Mutiny was transferred to India, England not bearing any share at all, and so the debt increased to over one hundred million pounds in 1860. After this, railway construction was taken in hand vigorously, and the debt began to rise rapidly. The following figures will give an idea of the rise in the total amount of debt subsequent to 1860. The figures are in crores of Rupees.

Year.	Total debt in crores of Rupees.
1860	136
1870	159
1882	166
1892	222
1902	339
1913 (Pre war year First world war)	455
1918 (Closing year of the War)	667
1923	837
1924	877
1931	1112
1936	1208·72
1938-39 (Pre-war year second world-war)	1205·77

This is a brief history of the Indian Public Debt upto the pre-war year 1939. It explains how this debt increased from a little more than Rs. 9 crores in 1792 to more than Rs. 1205 crores in 1939.

Analysis of the Indian public debt. The total amount of the debt in 1938-39 was about 1205 crores of Rupees. Of this total amount, Rs. 736 crores was held in India, while Rs 469 crores was held in England. Out of Rs 736 crores held in India, the permanent or funded debt was equal in amount to Rs 437 crores, while the temporary or unfunded debt was Rs 225 crores. Treasury Bills and ways and means Advances stood at 46 crores of Rupees. When the Government of India want to raise money for short periods—three to twelve months—treasury bills are issued at a certain price, which is determined by the rate of interest at which the Government of India are willing to borrow money. They are sold at a discount but after the expiry of the term for which they are issued the full amount is paid. If the Government wants to raise money for say, three months at the rate of 3 p c., they would sell a treasury bill of, say, Rs 100 for Rs. 99·4 to-day. The person who purchases a treasury bill to-day for Rs 99·4 will get Rs 100 after three months. In this way he will get interest at a slightly higher rate than 3 p. c.

In this way the Government of India borrow money from the Indian public, every now and then, at differing rates, according to market conditions. This has now become a permanent policy of the Government. That amount which the Government wants to keep with it for ten, fifteen or more years is raised on other principles; but the amount which it needs from month to month is raised through treasury bills.

Besides the funded and unfunded debt, which together account for Rs 663 crores out of Rs 736 crores held in India, there are certain other sums which the Government of India owe to the Indian public, but on different grounds. It has public money equal in amount to Rs. 27 crores as depreciation and reserve funds on various accounts. The following table gives these details and figures as they stood before the war

*Interest bearing Rupee obligations of the Government of India
in 1938-39.*

In India.

	Crores of Rs.
Loans	...
Treasury Bills and ways and means Advances	... 437'87 (Funded debt)
Unfunded debt	... 46'30
Deposits (Depreciation and Reserve Funds)	... 225'13
	... 27'34
Total amount of debt held in India	... 736'64

Sterling obligations on the same date The total amount of sterling obligations, as they stood in 1938-39 are given below, in crores of Rupees.

*Interest bearing sterling obligations of the Government of India
in 1938-39.*

(in Crores of Rupees converted at 1s. 6d. to the Rupee)

In England

Loans	...	...	396'50
War contribution	...	..	20'62
Railway annuities	...	...	47'82
Unfunded debt	...	...	4'18

Total interest bearing obligations both in England and India	Total	...	469'12
		...	1205'76

The first item in the above table constituted liability for the amounts of money raised by the Government of India through the Secretary of State for India from the English capitalists at varying rates of interest from time to time. The second item is a direct liability of the Government of India to the Government of England. In 1918 the former made a gift of £ 100 million to the latter, to be used in the prosecution of the War. Out of this amount 20.62 crores has remained unpaid by this date; so it figured under interest bearing obligations. The third item constituted the liability to English owned Railway Companies in India which were acquired by the Government of India, but the purchase money was promised to be paid during a course of years in the form of annuities, which, therefore, included both principal and interest. The fourth item does not call for any comment.

The total obligations in England were, therefore, Rs. 469.12 crores, which when added to the total obligations in India, amounting to Rs. 736.64 crores, made the grand total of interest bearing liabilities, or the amount of the total Indian public debt equal to Rs. 1205.76 crores.

Corresponding investments. The sum of Rs. 1205.76 crores though a big one, should not excite hasty comment till we have carefully examined how this huge borrowed amount was invested by the Government. Of two persons, A and B, A is indebted to the extent of Rs. 5,000, while B only to the extent of Rs. 1,000. If no further examination is made of the two cases, it may be said, in an off-hand manner, that the burden of debt is heavier upon A than upon B. But if it is discovered, on careful examination, that A has carefully invested the sum borrowed, while B has spent the whole or a major part of it for unproductive purpose then we will have to revise our judgment. In that case we will have to admit that the burden of debt is really heavier upon B than upon A. This is exactly the case with the Indian public debt. The table given below will give a rough idea of the investments of the Government of India near about the outbreak of the war.

**Total Assets of the Government of India against
the total liabilities.**

	Crores of Rs.
(i) Capital invested in Railways	754.38
(ii) Capital invested in Irrigation, Posts and Telegraphs and Telephone	24.30
(iii) Capital advanced to Provinces	186.12
(iv) Capital advanced to Indian States, and other interest bearing loans	20.92
Total interest bearing loans	98.642

(v) Cash bullion and securities held on treasury account	...	22.99
Amount not covered, which may be called unproductive debt	...	196.35
		<hr/>
Total	...	1205.76

So we find that against Rs 1205.76 crores of interest bearing obligations, the Government of India had Rs 986.42 crores worth of interest bearing assets, and about Rs 23 crores worth of cash, bullion etc., while only a balance of Rs. 196.35 crores remained uncovered, which could be called unproductive. The percentage of the unproductive to the total debt was about 16 p.c. This was quite a satisfactory condition of the public debt as will become obvious by comparing India's position in this respect with that of other important countries of the world before the outbreak of the present war.

The following table based on figures collected from the Statesman's year Book and the London 'Economist,' will give an idea of the position of other countries regarding public debt and its burden per capita. The figures are for varying years before the war. The present day condition is not definitely known and is not yet stable as the war is still going on. So we will base our comment on the relative position as it stood before the war.

PRE-WAR PUBLIC DEBT OF SOME COUNTRIES.

<u>Country.</u>	<u>Amount</u>	<u>Debt per capita</u>
India.	Rs. 1206 Crores	Rs. 34.
England	Rs 10,555 Crores	Rs. 2360.
U. S. of America.	Rs. 7271 Crores.	Rs. 592.
China.	Rs 403 Crores.	Less than Rs 16 ;
France.	Rs. 5126 Crores.	Rs. 1220.
Germany.	Rs. 1318 Crores.	about Rs. 200.
Italy.	Rs. 1350 Crores	about Rs. 330.
Japan.	Rs. 612 Crores.	Rs. 90.

The figures worked out above show that the amount of India's pre-war public debt was very small as compared to that of other countries, except China, whose figures are in the first place not very reliable, and in the second place, there being no stable Central Government in that country, the institution of public debt has not developed to the extent that it has developed in other countries where administration is stable.

The burden of public debt, per capita, was also lightest in India, except of course, in China. Even making allowance for the very small income per capita in our country as compared to that in other countries of the world, we find that the burden was light. And when it is remembered that about 84 per cent of the Indian public debt was against productive assets, and only about 16 per cent was unproductive, while the case with countries like England, America, France, Germany and other countries was almost the reverse of this, the comparison becomes still more favourable for India.

However, though opinions will continue to differ on this as on other allied questions, it cannot be gainsaid that the position of India as regards her pre-war public debt was not unsatisfactory, and in spite of the high handedness of financial authorities both in England and India in saddling tax with unwarranted expenditure and other questionable policies India should, on the whole, feel thankful that her position was not worse. For the present day condition of Public debt see the appendix.

Outline and short history of certain important sources of income.

Land Revenue

As mentioned in another connection, there is still a controversy as to whether land revenue is of the nature of rent realised by the supreme landlord (State) from the agriculturists, or a tax. The controversy, however, is fruitless, as it does not affect the incidence of the charge whether it is regarded as a rent or a tax. Suffice it to say that in theory it is rent, but in practice it is as much a tax as any other. As a rent it should not affect price, but as a tax it should, and it does affect it.

Leaving the permanently settled tracts aside, the general basis of assessment is not more than one fifth of the gross produce from any plot of land. From 1919, after the Montford Reforms, land revenue became a completely provincialised head. As a provincial source of income it is the most important single source. The following table will bring out its importance as compared to the total revenue of the Provinces. The figures are for the pre-war years.

Province.	Land Revenue.	Total Revenue.
Bombay	Rs. 345 lakhs.	Rs. 1203 lakhs.
Madras	" 736 "	" 1649 "
Bengal	" 325 "	" 1102 "
United Provinces	" 580 "	" 1173 "
Punjab	" 466 "	" 1039 "
Central Provinces & Berar	" 259 "	" 480 "
Assam	" 114 "	" 180 "

Land revenue, however, is not a growing source of income. With the advent of Congress ministries in eight provinces, the income from this source had begun to decline as the policy of the congress was to grant relief to the tenants in the matter of the payment of rent. But if rents are reduced, revenue charged from zemindars is also automatically reduced proportionately. As a matter of fact, if revenue is regarded only as a certain per centage of the economic rents realised from the tenants, then it will practically disappear if the cost of production of the cultivators is scientifically and accurately determined. It will transpire that the cultivators in the vast majority of cases cannot afford to pay any rent whatsoever. Under these circumstances, when there is no surplus over the cost of production to the cultivators, the income of zemindars and also that of the Government will suffer a serious diminution. But if revenue is removed from its ancient moorings, and begins to be regarded purely as a tax, than any rate may be fixed, which will, however, be only arbitrary in character, as Income Tax is at present. Further developements in this connection will be watched with very great interest in the different provinces of India after national government is established in the country. Later figures of land revenue and other sources of income will be found in an appendix.

In Great Britain, the pure land tax, as apart from income from agricultural sources, is very insignificant. In 1798, Pitt permanently fixed the land tax in that country. The net receipts from this source are only about £500,000 out of a total tax revenue of approximately £853 million or only about 06 per cent. At the time of this permanent settlement of land tax the landlord had a predominant voice in the Legislatures of the country. Later on, however, agricultural incomes began to be taxed under income tax, and so the system became elastic and very paying

In the United States of America, land tax is the main source of income in most of the 48 states of the Union. It is called the property tax there. Evasions are numerous, and the American property tax is regressive in character and falls more heavily upon the poor. The poor cannot evade the tax, while the rich, who have other sources of income also, very often escape scot free. About 50 per cent of the net revenue receipts of states or Provincial Governments are from property taxes.

In China also land taxes are very important. The amount of tax to be realised from a plot of land is entered on the title deed, and cannot be changed in future. It is a sort of permanent settlement. Temporary remissions, however, are very frequent as in India. Owing to the frequency of Civil Wars and internal riots in the country, such remissions are more frequent in China

than anywhere else in the world. Of the eighteen provinces of China, sixteen pay the land tax in silver, and only two, Kiang-Su and Cheh-Kiang, pay in grain. The total yield of the tax to the Central Government was about £5 million in the pre-war year, but the amount actually collected from the cultivators was about £20 million. The balance was not transferred to the Central Government, but was kept by the Provincial Governors as their personal gain. Nothing definite can be said about conditions existing at present.

In Japan the system is quite different from what it is in China. It resembles India more than any other country. The rate of assessment on wet land is about Rs. 10 per acre, while on dry land it is about Rs. 2-8-0. The system of land tax in Japan is superior to that of India, in as much as the former is elastic while the latter is not so. The tax is assessed on the capitalised value of land, based on its rental value. The rate can be easily altered from year to year according to current needs. The rate is 2·5 per cent on residential land, 4·5 per cent on rice and other cultivated land and 5·5 per cent on lands which do not come under the above two categories. Changes wrought by the war are not known as yet.

Income Tax. Income tax in India has a very long and chequered history. A general income tax, not exempting income from agriculture, was first levied for five years in 1860, to meet the financial burdens of the mutiny. At the end of 5 years the tax ceased to operate. In 1867 another Act was passed imposing a license-tax on professions and trades, excluding agriculture. It continued till 1872. No further taxation was imposed till 1878 when a license-tax was again levied on traders and artisans, and Acts were passed for this purpose for the United Provinces, the Punjab, Madras, Bengal and Bombay. The license-tax of 1878, was, however, converted into a general income-tax in 1886 by the Income Tax Act applicable to all India. Under this Act all incomes except agricultural were taxed. The rate of tax was 4 pies in a rupee for incomes of Rs. 1000/- and Rs. 2000/-, while on incomes over 2000/- the tax was 5 pies in the rupee. There was no further gradation and charities and religious endowments were exempted. Subsequent changes were made in 1903 by raising the minimum income to be taxed from Rs. 500/- to Rs. 1000/-.

The yield of the Income Tax before the last Great war 1914-18 was very small, being only about Rs. 3 crores. The richer classes escaped very lightly and did not bear their legitimate share of the burden of taxation. In the original Act there was really no attempt to make the tax progressive, except for the difference of 4 and 5 pies. In the Act of 1903 some attempt was made to

improve the progression. It was, however, owing to the grave necessity occasioned by the last war that in the matter of Income-tax the principle of progression was accepted for the first time in India. In the budget of 1916-17, the scale of progression was introduced in the ordinary income-tax. Upto Rs 5000 the rate was kept as before. But for incomes between Rs. 5000/- and Rs. 10000/- the rate was raised to one anna per rupee or $6\frac{1}{2}$ p. c. The profits of companies were assessable at the rate of $6\frac{1}{2}\%$. In the next year, however, the principle of progression was carried a step further by the introduction of a super tax. It was in addition to the standard rate of tax. The rate of the super tax was one anna per rupee on incomes between Rs. 80,000/- and Rs One lakh; one and a half anna per rupee on incomes between 1 lakh and $1\frac{1}{2}$ lakhs; 2 annas per rupee between incomes of $1\frac{1}{2}$ lakh and 2 lakhs; and 3 annas per rupee beyond Rs. 2 lakhs. This raised the yield of the tax to about Rs 10 crores in 1918-19.

In 1919, the first post war financial measure was one of remission of taxation. The minimum* of taxable income was raised from Rs.1000 to 2000/- In the same year the excess war profits tax was levied for one year on income over Rs. 30,000/-. Agricultural income and incomes of professional classes, and public servants were exempted. In 1920, the excess war profits tax was abolished, and the Super Tax Act was amended in regard to the profits of companies and registered firms. In 1921, the Government faced another deficit, and was forced to have recourse to additional taxation. The scale of progression both in ordinary income tax and the Super tax was revised and enlarged. The tax on smaller incomes was not raised, but, on the upper grades, it was so increased as to work up to a maximum of 16 pies in the rupee instead of 12 pies. And the rate on higher grades of income liable to Super tax was raised as to work up to a maximum of 4 annas in the rupee on an excess over $3\frac{1}{2}$ lakhs. In addition to these, several other charges were also made, which removed several shortcomings of the existing Act and increased the administrative efficiency. It also provided relief from double taxation. The financial difficulty of the Government, however, continued; and so in 1929, 1930, 1931, both the kinds of taxes were further revised, and a levy of surcharge was made and the free minimum income was lowered to Rs 1000 (in 1931). We find that in 1931 the income was divided into several grades i.e from Rs. 1000 to Rs. 2000 and between Rs. 4000 and 1 lakh and over 1 lakh. The rate of tax also increased in progression from 5 pies in the rupee for incomes between Rs. 2000 and Rs 3000 to 2 annas and 2 pies in the rupee for incomes over Rs. 1 lakh. The incomes between Rs 1000 to Rs. 2000 were taxed at the rate of 2 pies per rupee, and at 4 pies per rupee in 1931, at 2 pies per rupee in 1932. The

surcharge was $12\frac{1}{2}$ per cent in 1931-32, and 25 per cent in 1932-33 over the rates prescribed in the Finance Act of 1931 except in cases of incomes between Rs 1000 to Rs. 1999. The Super tax also increased in progression in respect of excess of Rs 30000 of total income and amounts from one anna and 4 pies in the rupee to 6 annas and 3 pies in the rupee. In cases of incomes between Rs 1000 and Rs 2000 the tax was at 2 pies per rupee in the year 1931. It was increased to 4 pies per rupee in 1932, but was again reduced to 2 pies in 1933. In 1935, the tax on incomes between Rs. 1000 and Rs 1500 was reduced to $1\frac{1}{2}$ pies, and on incomes between Rs. 1500 to Rs 2000 was reduced to $2\frac{2}{3}$ pies. The surcharge was reduced by one third. The surplus budget of 1936-37 made possible a further reduction by half of the surcharges of income tax. At the same time the exemption limit was once more raised to Rs. 2000.

Under the Finance Act of 1937, the rates of income tax were the same as in 1931, except that incomes below Rs 2000 were exempted. The Super tax also was nearly the same, i.e., ranging from 1 anna and 9 pies in the rupee to 6 annas and 3 pies in the rupee. The Supplementary Finance Act of 1937, imposed surcharges on the existing rates of super tax similar to those on the income tax noticed above. These were reduced in 1935 and 1936 to the same extent as in the case of Income tax. Incomes of Rs. 6 lakhs and above had to pay the ordinary income tax at the highest rate of 2 annas and 2 pies per rupee, plus $1/12$ th surcharge in the rupee and super tax at 6 annas and 3 pies in the rupee plus a similar surcharge. This amounted to a total income tax of just above 50 per cent (8 annas 5 pies per rupee) exclusive of the surcharges levied. These surcharges were completely abolished after the passage of the Income Tax (Amendment) Act of 1939 which was the sequel to an exhaustive enquiry by a committee of experts. Their report covered a wide field and made many recommendations among which was one for the adoption of the 'state' system instead of the 'step' system. In the Budget for 1939 this recommendation was given effect to.

After the outbreak of the war in September 1939, the Finance Member made no changes in the basic rates of income tax in his budget for 1940-41, but he introduced an Excess Profits Tax which was further increased in the 1941-42 budget to 66 $\frac{2}{3}$ %. In the same budget, the surcharge on basic rates of income tax and super tax which had been 25 p.c. since November 1940 was increased to 33 $\frac{1}{3}$ p.c. The budget for 1943-44 laid down a 66 p.c. income tax surcharge applied uniformly over all levels of income. The yield from income tax which was expected to be Rs 102 crores in the budget estimate for 1943-44 yielded Rs 138 crores, the Excess Profits Tax yielding about Rs 62 crores compared with the original forecast of Rs 40 crores. The share

of the Provinces from the divisible pool of Income Tax was about Rs. 19 crores about Rs 7 crores above the budget estimates.

New Proposals in the latest Budget (1944-45) , The main outlines of the scheme put before the House in an Income Tax Amendment Bill were as follows :—

“An assessee will have the option to pay tax quarterly, either on the basis of his last associated income or on the basis of his own estimate of current earnings. Government will pay 2 p. c interest on all sums paid in advance under the scheme, but if the assessee's own estimate which can be revised during the year, falls short of 80 p. c. of the tax determined on regular assessment, penal interest at 6 p. c on the difference will be payable. No penal interest will be payable where the assessee chooses to pay on the basis of his last assessed income.”

“As regards Excess Profits Tax no change in the rate of tax is proposed which remains at 66½ p. c. Nor is any change made in the proportion of the tax, namely one tenth, which is to be repaid to the assessee.

General Remarks The Income tax, as it is at present, is much indebted to British laws and precedents. However, it contains several features which find no justification. The first of them is a constitutional question. It rises from the fact that the Indian Income tax is not exclusively governed by the legislation and court decisions but the Governor-General also can make exemption, or a reduction or modification by notification, and no less than 39 kinds of exemptions are authorised. Such delegation of power to an irremovable executive not responsible to the legislature finds no parallel in the history of income tax of any other country. The second drawback is that neither the principle of residence nor that of origin finds full expression in governing the scope of the income tax. The salaries, allowances and pensions payable abroad to Government servants, and the sterling securities do not pay the Indian income tax. Also, the incomes of residents arising abroad and not received in the country are outside the purview of the tax. Such a tax was objected to because it threatened to raise the rate of interest against India in the London Money Market or was considered likely to discourage the flow of British capital into India. But there should not have been any reason for any fear on this account, because under the British Income Tax Act such incomes get relief on double taxation. Moreover, the rate of profits in India and other similar things would counteract any tendency towards discouragement on the interest of sterling securities. On account of changed relations between England and India as a result of the liquidation of our debt to England this aspect has lost its significance. As regards taxing income

arising abroad, it may be pointed out that not only will it bring increased revenue, but it will also check the growing tendency towards an export of capital. It is desirable that Indian commerce and industries should be financed by Indian capital, and this measure would serve the purpose to a considerable extent.

Another undesirable feature is the exemption of Agricultural Incomes from the tax. As long before as 1924, the Taxation Enquiry Committee found that there was no historical or theoretical justification for such an exemption. It may be argued that temporarily settled areas pay a land revenue which may be called a tax on agricultural incomes; but this argument cannot be advanced in favour of exempting incomes from permanently settled estates. Moreover, the case of taxing higher grades of income from temporarily settled lands is quite strong. In addition to these direct exemptions, the law allows that agricultural incomes are to be excluded from the total income in assessing an income tax. It means that they are not taken into account in calculating the rate of tax due on the taxable income. Such an exemption is not only unjust in theory and contrary to practice in other countries, but also inflicts a great loss on the nation's exchequer.

There are a number of minor exemptions of an undesirable kind, as for example incomes of High Commissioner, Trade Commissioner and other officials in the Consular and Diplomatic services abroad. Some exemption is given to military officials in that the income deducted for mess, wine or land fund are not taxed. Capital sums received in commutation of pensions are also exempted.

To sum up, the Indian Income Tax, as at present constituted, contains a number of flaws which find no justification, and the net result of which is considerably to reduce the yield of the Indian Income tax. Closing up these gaps would probably increase the resources by between Rs 10 crores to Rs 15 crores, an amount not to be despised in the light of both our requirements of public expenditure and our revenue from tax resources.

Salt Tax The Salt tax was inherited by the British Government from its predecessors along with a large number of transit duties. These duties were abolished in 1843 and the Salt duty was raised and consolidated. Before 1882 the tax varied from province to province. But in this year it was made uniform at Rs. 2 per maund. It was raised in 1888 to Rs. 2.8 per maund, and continued at this level till 1903 when easier finances permitted its being lowered to Rs. 2.4 per maund. It was further

reduced to Rs. 1-8 in 1905, and to Re. 1 in 1907. It continued at the level till 1916 when the tax was raised to Rs 1-4. In 1919 the duty was raised to Rs 2-8 by certification by the Governor-General, though it was rejected by the Assembly. In 1924, however, the Assembly exercised the option given by the Government and reduced the tax to Re 1-4. In 1931 the duty was raised to Re 1-9 and a Sur-tax of 25 per cent on the existing rates was imposed. In 1935, the Congress party in the Assembly, unsuccessfully tried to reduce the tax from Re. 1-4 to 12 annas, which would have meant a loss of Rs 3½ crores. The Congress party again tried to abolish the tax in 1936, but was unsuccessful. The yield of the Salt tax was about 6 or 7 crores of rupees which came to about 3½ annas per head per annum before the 25 per cent surcharge of 1931. The estimate of revenue under this item for 1940-41 was Rs 8·7 crores

The Salt tax, though very ancient, is one of the most unpopular taxes in India. It has been justified on the ground that this is the only means of reaching the masses by direct taxation. A reply to this may be made that Land Revenue is already a direct tax, which is collected from a large majority in India. In case of those who do not pay any land revenue, it can be safely inferred that they are so indigent that the idea of taxing them should be given up. The principal objection to the Salt tax is that it is a tax on a necessary of life, and a restriction on its consumption has an undesirable effect upon the physique of the people. The fact that a reduction in the rate of tax since 1903 was followed by a considerable increase of consumption, suggests that it had been kept at an increasingly high level before. It is a regressive tax, since it presses upon poor people more heavily than upon the rich. Consequently, though for practical reasons, it will be impossible to abolish the tax immediately, this should be definitely recognized as the goal of public policy, and steady approaches should be made towards it. So long as the tax cannot be dispensed with, it should be maintained at as low a pitch as possible, and an increase should not be thought of except for grave reasons, and should last only during such an emergency.

Customs Duties. Until recently, 1924, the Indian Tariff had been on a scrupulously conscientious free trade basis. This involved very moderate import duties. Upto 1859, an import duty of 5 per cent on finished goods and of 3½ per cent on raw material was imposed. But in this year the financial stringency caused the distinction to be abolished, and the duty was raised to 10 per cent in general. However, under pressure from English interests the customs duties were abolished by 1882 by gradual process. Consequently there was practically no import duty between 1882 and 1894. In the latter year a general import duty of 5 per cent *ad valorem* was imposed, cotton goods and

certain other goods being exempted. Between 1899 and 1904 certain countervailing duties on sugar were imposed, but were subsequently cancelled by 1912. Another important change in import tariff during the period before the last great war was made in 1910-11 when high import duties were levied on silver, and petroleum. In 1894, it was decided to levy an import duty of 5 per cent on cotton goods. But to propitiate Manchester, a 5 per cent duty was levied on yarn of 20 and higher counts produced in India also. In 1896 the import duty was lowered to $3\frac{1}{2}$ per cent and the excise duty also was lowered to the same extent.

Until 1860 export duties were an integral part of the early tariff policy. A duty of $3\frac{1}{2}$ per cent *ad valorem* was generally levied on all goods. But since 1860, though the duties were low and were solely for revenue purpose, a consistent policy of abolition was pursued; and so by 1880, only the export duty on rice was allowed, and the rest were abolished. A trifling export duty on Tea was levied in 1903.

The customs schedule was totally recast in 1916-17 in order to provide additional revenue. The general import duty was raised from 5 to $7\frac{1}{2}$ per cent *ad valorem* except in case of sugar for which 10 per cent was fixed. The free list was also curtailed. The principal article not touched was cotton manufactures. The revenue from customs in 1920-21 was about Rs 32 crores. The customs tariff was further raised in 1921-22 and 22-23. The general *ad valorem* duty was raised from $7\frac{1}{2}$ per cent to 11 per cent and then to 15 per cent. In 1930 the duty on cotton piece goods was raised from 11 per cent *ad valorem* to 15 per cent and an additional 5 per cent protective duty was imposed on British goods for 3 years. A general increase was made on the import duty on Sugar. The acute economic depression and heavy deficit led to a further increase in the import duty. The Finance Act of March 1931 increased the rates and imposed additional surcharges. In addition to this, certain protective duties were also levied. In November 1931, a further increase in the import duties was affected. This remained in force till March 1933.

In 1932 the Ottawa Trade Agreement was given effect to. This fact involved, on the part of Indian Government, the grant of a preference of $7\frac{1}{2}$ per cent on certain classes of motor vehicles and of 10 per cent on tariff preference on certain other goods. The Finance Act of 1935 further reduced the silver duty to 2 as. per oz., but the deficit budgets of 1936-37 and 1937-38, needed an increased income. So under the 1937-38 budget the duty on silver was increased from 2 annas to 3 annas per oz., which gave about 50 lakhs of rupees.

In 1916-17 two new export duties were levied on Tea and Jute. In the case of *Tea* the duty was fixed at Re. 1-8. This duty was abolished in 1927-28, but it was accompanied by an increase in the income tax. The duty on *Jute* was fixed at the rate of Rs. 2-4 per bale of 400 lb i.e. about 5 per cent *ad valorem*. Manufactured Jute was charged at the rate of Rs. 10 and Rs. 16 per ton of sacking and hessians. In 1917-18 the duty on Jute was doubled. In 1919, a 15 per cent *ad valorem* duty with a rebate of 10 per cent was levied on raw hides and skins as a measure of protecting the tanning industry in India. However, in 1923, the duty was reduced to 5 per cent and the 10 per cent rebate was also abolished. The Government tried to abolish this duty in 1927, but could not because the Assembly rejected the proposal. However, in 1934 the duty on raw hides was abolished and in 1935 the duty on skins was abolished because the trade was declining. Throughout all the successive increases in duty on imported cotton goods, the excise duty remained at the old level of 3½ per cent. This was finally abolished by an ordinance from the Government issued in April 1926.

In 1934 two new excise duties were levied on *Sugar* and *Matches*. The Sugar Excise Duty Act of 1934 imposed a duty of 10 annas per cwt. on Khandasari Sugar and of Re. 1-5 per cwt. on all other Sugar. This was to fill up the gap which was created by the decline in the import of Sugar due to surcharge imposed in 1931. This excise duty on Sugar was increased to Rs. 2 per cent in March 1937, to meet the deficit budget. This increase brought out a stream of trenchant criticism from all quarters. It was said that it would not only affect adversely the manufacturers, but even the cane cultivators would suffer, because it would be transferred to them in the form of lower prices. As regards Matches, the Match Excise Duty Act 1934, imposed on matches made in British India and sold in boxes or booklets containing on an average not more than 80, an excise duty of (i) Re. 1 per gross boxes or booklets containing an average of 40 or less (ii) Re. 1-8 if the average is between 40 or 60 (iii) and Rs. 2 if the average number is more than 60. On all other matches the rate was fixed at 4 annas per 1440 matches or fraction thereof.

The Indian Finance Act of 1940 raised the rate of the excise duty on sugar other than *Khandasari* sugar from Rs. 2 to Rs. 3 per cwt., which automatically increased the import duty by the same amount. This increase was effected as part of the programme of higher taxation in India's first war Budget (1940-41).

The excise duty on matches was doubled and a corresponding increase in the import duty was effected in March 1941, in

connection with the new taxation scheme embodied in the budget for 1941-42 as part of a plan for meeting the heavy deficit arising from the increased expenditure caused by the war

An emergency Customs duty of 20 p. c. *ad valorem* was imposed in 1942-43 and was continued in 1943-44. An excise duty was imposed on all tobacco except that grown by a person for his own consumption or that of his household. It is expected that this excise duty will entail a rise of 20 p. c. in retail price. The yield is estimated at about Rs. 11 crores.

An excise duty was also levied on vegetable product *banaspati*. The rate was Rs. 5 per cwt. and it was expected to yield Rs. 1 crore.

Some important figures Main sources of Income and items of expenditure of the Central Government, with corresponding figures, are given below:—

CENTRAL BUDGET.

Revenue	Revised Estimate 1942-43. Rs	Budget Estimate 1943-44 Rs.
Principal Heads of Revenue —		
Customs ...	31,00,00,000	30,00,00,000
Control Excise duties ...	12,70,00,000	25,02,00,000
Taxes on Income including corporation tax ...	66,80,00,000	90,00,00,000
Salt ...	10,00,00,000	9,75,00,000
Opium ...	88,70,000	1,07,41,000
Other Heads	1,19,69,000	1,19,67,000
Total ...	1,22,64,39,000	1,57,04,08,000
Railways: Net Receipts (as per Railway Budget) ..	21,96,76,000	26,73,66,000
Posts and Telegraphs: Net Receipts ...	6,24,04,000	9,21,82,000
Currency and Mint ..	5,45,90,000	5,13,34,000
Defence Services ...	8,50,17,000	16,02,25,000
Extraordinary Items ..	19,07,75,000	14,37,58,000
Direct demands on the Revenue ..	5,21,03,000	5,58,73,000

Expenditure.	Revised Estimate 1942-43 Rs.	Budget Estimate 1943-44 Rs.
Railways. Interest and Miscellaneous charge (as per Railway Budget) ...	44,96,47,000	37,60,58,000
Debt Services ..	10,15,47,000	11,45,67,000
Civil Administration ..	17,11,60,000	17,88,48,000
Currency and Mint ...	2,11,47,000	1,56,34,000
Civil Works ...	3,93,39,000	2,86,63,000
Defence Service ...	1,98,25,17,000	1,98,83,25,000
Miscellaneous Adjustments between the Central and Provincial Governments ...	2,77,02,000	2,75,94,000
Extraordinary Items ...	34,18,14,000	27,14,71,000

Important Figures of the Revenue and Expenditure of the
U. P. Government for 1943-44 (Approximate figures).

Revenue	Budget Estimate 1943-44 Rs.
Land Revenue ...	6,30,100 000
Excise ...	2,00,00,000
Stamps ...	1,45,00,000
Forest ...	1,30,00,000
Registration ...	9,50,000
Irrigation (Net) ...	2,00,00,000
Debt Services ...	28,00,000
Civil Administration —	
Justice ...	18,00,000
Jails ...	8,30,000
Police ...	50,70,000
Education ...	16,00,000
Medical ...	3,50,000
Public Health ...	3,70,000
Agriculture ...	13,00,000
Industries ..	1,40,00,000
Civil works ...	22,00,000

Important figures of Revenue and Expenditure of the U. P. Government for 1943-44 (Approximate figures).

Expenditure	Budget Estimate	
		1943-44 Rs.
Direct Demands on Revenue .—		
Land Revenue	...	92,00,000
Excise	...	15,00,000
Stamps	...	2,50,000
Forests	...	50,00,000
Registration	...	500,000
Interest on Irrigation Works	...	1,16,00,000
Debt Services	...	84,00,000
Civil Administration :—		
General Administration	...	1,57,00,000
Justice	...	77,00,000
Jails	...	56,00,000
Police	...	3,00,00,000
Education	...	2,37,000
Medical	...	50,00,000
Public Health	...	27,00,000
Agriculture	...	55,00,000
Industries	...	1,46,55,000
Rural Development	...	15,00,000
Civil Works	...	89,00,000
Superannuation allowances and pensions	...	1,20,00,000

A table giving the financial position of 812 municipalities in British India for 1936-37.

In Lakhs of Rupees

<i>Sources of Income</i>		<i>Heads of Expenditure</i>	
Municipal rates and taxes	147	Administration and collection charges	184
Taxes on houses and land	527		—
Tax on animals and vehicles	48	<i>Public Safety :—</i>	
Tax on trades and professions	32	Lighting	132
Tolls on roads and ferries	30	Police	1
Water rate	2,26	Fire	17
Lighting rate	43		—
Conservancy rates	1,20	Total	150
Other Taxes	1,92		
	—	<i>Public Health and convenience,—</i>	
Total Rates and Taxes	1,364	Water supply drain- age and conser- vancy	514
Realisations under special Acts	18	Hospitals, dispen- saries and vacci- nation	98
Grants from Government	94	Plague Charges, markets, gardens and sanitary	94
Rent of lands, houses, etc.	54	Public works	234
Fees	1,05	Public instruction	240
Receipts from mar- kets and slaughter houses	93	Contributions for general purposes	74
Miscellaneous	166		
	—	<i>Miscellaneous :—</i>	
Total Income	1,894	Interest on Loans	157
Extraordinary and Debt	2,3,06	Other expenditure	129
	—		—
Grand Total	4,200	Total expenditure	18,74
		Extraordinary and Debt	2,082
			—
		Grand Total	3,956

CHAPTER XXX.

NATIONAL WEALTH AND PROGRESS.

Before discussing the causes of an increase or decrease in national wealth it will be better to form a correct idea of the meaning and extent of this important term. National wealth consists, in the first place, of the wealth of all individuals that go to make that nation. In the case of India, for example, national wealth will first consist of the aggregate wealth of the 389 million inhabitants of the country. But it is something more than that. There are some elements of the wealth of a nation which are not taken into consideration when estimating the wealth of the individuals composing it. There are many forms of wealth and property which do not belong to any single individuals, but belong to the community to which he belongs. They are comprised under the term 'collective wealth'. In an Indian village, the *chaupal* is collective wealth; so is the village common land or pasture grounds (if any) and such wells, temples, mosques, schools and other buildings which have been constructed either by private individuals for common use, or by local public authorities for the benefit of the whole village community.

Then there are a large number of roads, canals, public buildings, gasworks, electric installations, public parks, museums, public libraries, waterways, Railways, Airways, and a host of other material requisites of life, which have been provided by the local, provincial or central authorities, for the use and benefit of people in general. So, in forming an estimate of national wealth of any country, account has to be taken of all the elements mentioned above. This would, in consequence, increase the amount of wealth to a much higher figure than if these elements were not included therein. In India, for example, there are numerous irrigation works, like canals, tanks, and wells; and also other highly valued public works, apart from forests, railways, posts and telegraphs, telephones, which should all be included in forming an estimate of India's national wealth.

But this is not all. Some economists incline towards including under national wealth, certain free gifts of nature also—free gifts which have added more to their wealth than other forms of artificial wealth. Marshall writes in this connection, 'The Thames has added more to the wealth of England than all its canals, and perhaps even than all its railroads. And though the Thames is a free gift of nature (except in so far as its navigation has been improved), while the canal is the work of man, yet we ought for many purposes, to reckon the Thames a part of England's wealth.' In India the Himalayas, as the source of many of her

great rivers, can be included under an inventory of national wealth. The rivers Indus and Ganges have done more for Northern India than all human agencies taken together. They can be treated on parallel lines with the river Thames in England.

German economists, however, go still further. They do not confine themselves to including only material forms of wealth, individual or collective, artificial or natural, under National wealth; but they also include certain non-material elements. Certain trade secrets, which are closely preserved by a nation; scientific discoveries which are confined only to one nation and have not become the property of the world; and the organisation of a state which is peculiar to itself, are all included under National wealth by German economists. In this connection it may not be without interest to mention that although a large number of the late marconi's discoveries in wireless telegraphy have become the property of the world, and so cannot be regarded as the national wealth of Italy in the above sense, yet, there are certain special discoveries which have not been made public, but which were taken advantage of by Italy during the Abyssinian War and in some instances in the present war also. They could be included under National Wealth when used in the broad sense. Also, it is as yet a secret how the long range guns used by Germany in the closing stages of the first Great War for bombarding Paris from a distance of more than 70 miles were constructed. In the retreat from France, these guns were totally destroyed by the German high command, so that they may not fall into the hands of the Allies, and their design may not be known to outsiders. The invention of pilot-less planes by Germany or of some giant bombers by America and England may be treated in like manners.

Although it may sometimes be of benefit or interest to include such non-material elements like trade secrets and state organisation, under national wealth; and although it may be highly illuminating and perhaps eminently fair to include certain free gifts of nature like the Thames, or the Ganges, in that category; yet, these elements introduce a great amount of vagueness in the notion of national wealth, and do not help in the scientific comparison of the national wealth of different countries. For these reasons it is not very advantageous to use national wealth in this broad sense, except on certain occasions which demand a wider use of the term. For ordinary purposes national wealth should be taken to consist only of individual as well as collective property of the people comprising a nation which may be definitely brought into relation with the measuring rod of money.

Causes of Variation in National Wealth When national wealth is taken to mean the aggregate wealth of all individuals

comprising a nation and also collective wealth owned by the community at large the same causes which increase or decrease the individual or collective wealth will also correspondingly affect the national wealth which is made up of these two constituents

The character of individual, and also of collective wealth has undergone a great change during the period of man's economic progress. Four stages of man's economic progress have been chiefly marked out, namely hunting, pastoral, agricultural and commercial. In the hunting stage, the individual wealth consisted only of bows, arrows, fishing canoes, nets, skins and teeth or tusks of wild animals and things like that. Even at that stage, man realised, to some extent at least, the importance of his future needs. If it were not so, he would not devote time and labour to, make arrows, bows or canoes. But man's development from the economic point of view was of such a trifling character at this stage that its mention is considered necessary only on theoretical grounds.

In the pastoral stage, conditions changed in certain important respects. Bovine cattle especially, and their yield began to be regarded as man's chief articles of wealth. If someone was to be rewarded by the reigning monarch, it was done by giving him an option of selecting a particular number of the very best cattle. However, the really important advance was made when man advanced to the agricultural stage. It may be mentioned in this connection that there is really no hard and fast line of demarcation between one stage and another. As a matter of fact, even during the hunting stage there were people and classes who supported themselves by rearing cattle; and during the pastoral stage there were a large number who were carrying on agriculture. There is thus a great deal of over lapping. What is meant by dividing the history of man's progress into a number of stages is merely to point out the dominant position of one particular method or way of living at a definite period, and nothing more.

So, during the agricultural stage, land emerged from the category of free goods to economic goods, and as its demand increased, the supply of the best available land began to grow scarce and its value began to increase. It will not be wrong to say that the beginning of an increase in the wealth of nations synchronised with the scarcity of a very important free gift of nature. This is the basis of attack of some persons on the relation between wealth and welfare. Wealth began to increase when welfare, measured in terms of goods freely available to mankind in general, began to decrease. But this is only by the way.

With the development of agriculture arose the necessity of agricultural capital, both in the form of cattle and implements and tools, and also in that of farm buildings, irrigation and drainage works, enclosures and other permanent improvements in land. The rate of increase in wealth received a great push during this stage and upto the Industrial Revolution in England, near about 1760, the most important forms of wealth were cultivated land, houses, domesticated animals and also implements of production whether for use in agriculture or cottage industries, though they were not of very great importance. There were also a large number of boats and sailing vessels, which deserved to be included under wealth; and also diamonds, gold and silver which had come into use at this time. Palaces of monarchs and their costly furniture and settings, the big houses of nobles and courtiers, the costly structures of places of worship, with sometimes their untold treasures which attracted the greedy invaders from far and near, had also assumed a great importance.

Wealth at this period was concentrated only in the hands of powerful monarchs and their nobles and courtiers. People, in general, possessed very little of it and as money economy was not very much prevalent in those days, there was also not much occasion for the diffusion of wealth among the masses.

The Industrial Revolution created a middle class which was not in existence before. The manufacturers who *produced* the commodities, the transporting agencies that *carried* them to long distances and the traders who ultimately *handed* them over to the ultimate consumers or their servants, now came more and more into prominence. The Industrial Revolution, while it gave man a greater control over nature and her forces, made it necessary to substitute the heavier and the more costly machinery for the lighter and cheaper ones. As mechanical energy began to be used in running the machines wooden machines gave way before iron ones; wooden ships were replaced by steel bottomed ships, and the stage coaches made way for railways and steam engines.

Mechanical inventions of the 18th century made it possible, and the increased knowledge of the technique of production made it desirable, to use the more complicated and the more costly types of machines, and elaborate for building the production of goods. Transporting agencies also were revolutionised. The Railways and Steamships, Roads and Canals, afforded ready means of investment. Money economy helped to a considerable extent the investment of surplus funds lying with people in such productive enterprises. At this juncture, or more strictly even before that, the institution of joint stock companies gave a great fillip to this tendency. Along with the power to save, which was gradually increasing in different countries of the world, though

in varying proportions, the opportunities to save were also increasing in number and character. When once an impetus is given to the accumulation of wealth, it takes a long time for its effect to die out. What usually happens is that the momentum once received goes on increasing with the lapse of time ; and even if nothing else is done, except leaving the investments intact when they are once made, wealth goes on increasing and ever increasing. This was the case in England, and later on in France, Germany, America, Italy and Japan.

With the spread of education, people began to realise the importance of future needs, and also began to appreciate the really economic character of more durable goods, in the long run. Provision, therefore began to be made even for distant needs, and far-sighted people began to make provision not only for their own future needs, when they retired from business, but also for those of their families, and even for the pressing needs of their country. With the lifting of moral ban from the charging of interest, capital began to grow rapidly, and under the inducement of increased gains on account of the accrual of interest the amount of savings increased considerably.

The character of wants became more complex, but at the same time more refined. Under the inventory of wealth, the articles of furniture and decoration assumed very great importance. Land, buildings, machinery ; investments in foreign countries, furniture, fittings and other movable possessions of individuals ; animals like cattle, sheep horses etc ; railways, roads, canals, public buildings, and other forms of collective wealth ; all swelled the national wealth of a country. Thus calculated the national wealth of Great Britain is approximately £20,000 million while that of India is £10,000 million.

Case of India. We have discussed above the causes of variations in the national wealth of countries in general. The case of India falls equally well under that description, but after the Industrial Revolution in England, in 1760, condition in our country became abnormal. The prevalence of peace and a calm atmosphere are important causes of the growth of wealth in any country ; but in India these conditions were totally absent till about 1857. After the break-up of the Mughal empire, wars broke out among different elements which tried to acquire political supremacy. The English came out successful from this struggle, and the English East India Company acquired political control over the country. But this did not bring in a peaceful era at once. On the other hand, a number of wars continued to be fought, both inside and outside the frontiers of the country. Then there was the Mutiny and the transference of the political power from the East India Company to the Crown. Conditions

improved, no doubt, after this transference, but still, wars continued to be waged. However, towards the last quarter of the 19th century, normal conditions were restored. So, as far as India is concerned, the growth of wealth should be considered to have resumed its normal course from after, say, 1875. India was thus thrown more than a hundred years behind England and other countries.

But this was not the only handicap under which India suffered. Even after normal conditions were restored in the country, the net result was that a foreign country acquired complete political and economic mastery over the affairs of the country. Naturally there could not be an increase in wealth or national income along the same lines in this country as had taken place in other countries of the world, which were either independent, or had acquired the status of a dominion under the British Empire. The increase in national wealth of India only assumed the character of an increase in land values. This, as pointed out above, is more due to the scarcity of land than any positive contribution on the part of man. On account of the growth of foreign trade, which consisted in exporting raw materials and importing finished goods, the value of agricultural land began to increase rapidly. The destruction of cottage industries owing to the competition of foreign made articles increased the pressure of population on the soil and raised its value. This increase in the value of land, and so in the national wealth of India, at least to that extent, could not be attributed to the growing prosperity of the country.

Railways, Canals, Posts & Telegraphs, Telephones, & Provincial public works had been constructed not by money raised from the country, but mostly out of borrowed money. They, therefore, could not be reckoned as net assets. The system of cultivation, on the whole, being primitive, the amount of agricultural wealth could not be very large. Factory production is of very recent growth in India, and still suffers from the vagaries of the yearly budgets. None the less, the wealth of India as measured in terms of factory buildings, other private buildings, machinery and plants, furniture, fittings, animals etc., has begun to show signs of a true increase during the last 10 years, and specially during the present war there has been a great accumulation of wealth in the form of buildings and factories etc.. Their extent, however, is not definite as yet.

Economic Progress. By economic progress we mean the progress, development or refinement, as the case may be, in the production, exchange, distribution and consumption of wealth. The mainspring of all economic progress is the desire of an individual to satisfy a want that he feels. When he feels a want, it usually means that he has also a desire to satisfy it. Hence

forward, much depends upon the character of these wants, and his readiness to put up efforts for their satisfaction. In the earliest stages, man's wants were few and simple. In consequence, his efforts to satisfy these wants were also direct and correspondingly simple. With the lapse of time, the character of his wants changed, and his efforts or activities also changed in character. At a still later stage, his activities began to give rise to new wants and so the circle went on, widening, and is even now going along the same line.

Passing from the hunting, pastoral and agricultural stages, we find that civilised man is now passing through a manufacturing or commercial stage. During all this period, great changes have come about in the methods of production, exchange, distribution and consumption of articles that he wants. A study of these stages, and of the evolution of modern methods of production etc., of wealth is a study of the economic progress of mankind.

Apart from the invention of fire, and of the art of writing, the most important invention of modern times has been that of the steam engine. The harnessing of steam for this purpose by man has revolutionised world conditions. All modern activities of mankind are directly traceable to this invention. The development in the means of transportation has been made possible by steam, and this in its turn has made the modern world what it is at present. All economic activities of man have undergone a radical change in character, on account of the phenomenal development in transporting methods. The once isolated or self-sufficient economy of the world has now absolutely given way to international and therefore, interdependent economy. Each unit of the world brought in contact with other units has not failed to influence it in its own way, to howsoever small an extent.

Labour and Capital have both become highly mobile in modern times, the latter much more than the former. Old countries provided capital, and also labour, to newly discovered, or otherwise unexploited countries, benefitting both themselves and these other countries. England, a rich and old country, provided capital and labour to the new world and her other dominions and dependencies, and benefitted them and herself immensely. Her financial position in the first world war received a thorough shaking but she still remained the first creditor country in the world. But during the present war England has lost her position as a creditor country. America has occupied and is going to retain it with this supply of capital now by one country, then by another markets developed and wealth of nations increased enormously. In course of time, these new countries became so far developed that they began to advance

resources to other less developed countries, and sometimes to the older countries when occasion demanded. An increased command over resources enabled a decadent or stationary population to increase, and the population of the world increased with big strides after the Industrial Revolution. With an increasing population the demand for products of various descriptions, and for land and houses and other producers' and consumers' goods, increased considerably giving a still greater impetus to production all round.

With the development of economic resources, and the increase of education and consequent mental equipment, man's command over nature began to increase. Each successive invention and discovery opened up large fields for further effort, and man's triumphs over nature have now become events of every day occurrence. Man now takes better diet, is better housed and clothed, and his living in general has improved very considerably indeed. Those things which even princes could not afford in medieval times are now easily available to those who are prepared to make a very ordinary sacrifice in the form of paying a price for them. Some of them, like public parks, museums, street lighting, public radios, concerts, public libraries, dispensaries, education, and so on are freely available in all advanced countries to individuals composing a nation.

An ordinary man's breakfast, or an ordinary man's clothing, is composed of articles which have set hundreds of thousands of people to work, and required investment of hundreds of millions of pounds! Cheap railway and steamship journey cheap articles produced in more distant countries of the world, enjoyment of commodities and services made possible by latest scientific inventions and discoveries, at no price or very little price, penny postage, and a host of other amenities of life give an indication of modern economic progress.

Effect of Economic Progress on Various Factors of Production.

Land.

The effect of economic progress on land has been different in different countries and will be discussed in relation to the conditions prevailing in a particular type of country. A word of caution may not be out of place here in connection with the connotation of the term economic progress. Improvement in the art of cultivation and development in the means of transportation are both included under the term economic progress; but as we proceed with our discussion it will become evident that the effect of these two is different on land values or rent of land. A general increase in population is also a feature of modern

economic progress, as it is known that population has a tendency to grow, if unchecked, provided that means of subsistence or man's command over nature and natural resources, increase. In consequence, it will become necessary to discuss the effect of (a) agricultural improvements (b) development in the means of transportation and (c) a growth of population, on land and rent separately.

(a) Taking agricultural improvements first, it may be said that ordinarily the effect of such improvements is that the value of land rises. A plot of land, with enclosure all round and a good well inside, will clearly be more valuable, and will be in greater demand than one without any enclosure or a well. So far it may be said without any hesitation that the effect of agricultural improvement is to increase the value of the land, and so to increase rent. But if such improvements become quite general, and every plot of land is so enclosed and provided with irrigation or drainage facilities as the case may be, then the case does not remain so simple. By these agricultural improvements the yield of land will certainly increase. If there is side by side with this increased supply also an increased demand, then there is no difficulty. But if the demand does not increase correspondingly, then the increased supply due to agricultural improvements will not find a ready market. The result will be that some lands will go out of cultivation and their value will fall and the rents decline. The margin of cultivation will fall and the total rental value of land of the country will also fall. What is true of agricultural improvements in general, is also true of a change in the method of cultivation. If there is a change in the method of cultivation only in a small area, the value of the yield of that land will increase, and with it the land value and its rent will also rise. But if this change in the art of cultivation is at all general, the result will be exactly the same as in the case of improvements in general.

(b) Regarding development in the means of transportation it may be said that it affects different countries differently. If means of transportation connect two countries in one of which almost the whole land has been brought under cultivation, while in the other there are still vast stretches of virgin soil lying uncultivated, or only very lightly cultivated on account of the absence of adequate demand for agricultural produce, then land values will fall considerably in the first country, and will rise in the second. This happened in the case of England and America, or England and India. After the development of inter-oceanic navigation, raw materials began to be exported from America to England on the one hand, and from India to England on the other. The result was that rents in America began to rise while those

in England began to fall. On account of the competition of agricultural produce from America, raised on highly fertile and virgin soils, lands in England began to go out of cultivation. So, the margin of cultivation began to fall in England and rise in America. Exactly the same was the case as between India and England. Owing to the development of means of transportation between India and England, both by Railways and Steamships, the demand for agricultural land increased considerably in India, thus resulting in a rise of rent and land values. This export of goods from India to England depressed rents and land values still further in England.

This is, however, only in connection with agricultural land value and agricultural rent. As far as urban site rent was concerned it was not at all affected by the import or export of agricultural articles. It was governed by a demand for urban sites caused by the multiplication of factory buildings and an increased demand for houses for the growing population of towns and cities. In England, especially, the loss caused to landlords by a fall in agricultural land values was more than made up by a very great rise in the value of urban site rents soared enormously high.

(c) The effect of an increase in population on land is invariably to increase its value. Even if the growing population is absorbed by rising industries, there is an increased demand for agricultural produce which results in an increase of land values and land rents. In India population has increased enormously during the last 50 years; but almost this whole increase has had to depend on agriculture alone. Many artisans have migrated from the towns to the villages and the pressure of population on the soil has increased still further. In addition to all this, large quantities of raw materials are raised from the land not only to feed the vast Indian population, but also to feed foreign mouths or foreign factories. For this reason the increase in land value and land rents in India has been very great indeed. Owing to the great depression, before the war, land values and rents have gone down considerably, but the upward tendency may restart any moment as there has not been any fundamental change in the character of production, trade and commerce, of the country. Tenancy legislation further depressed land values in several provinces of India. The present war has produced an upward trend but how far it will remain permanent has to be seen.

Labour.

The effect of economic progress on labour has been very remarkable during more than one hundred and eighty years after the Industrial Revolution, but especially during the last and the

present centuries. The labouring classes have been raised almost from the lowest depths to a respectable place in society, in England, America and Continental countries. The condition of working classes towards the end of the 18th century was as deplorable in England and elsewhere, as it is at present in India; but the constant endeavours, of the labour leaders on the one hand, and latterly, that of the State, on the other, have succeeded in giving labour a status which is quite respectable. The introduction of free and primary education paved the way for further progress. The development in the means of transportation gave them opportunities to go and settle wherever a better opening presented itself. But even when remaining in their own country they improved their lot considerably and after being properly organised became a force in their respective countries.

The introduction of machinery and steam engine took away from them the drudgery of the work, and the distinction between skilled and unskilled labour became very narrow. Instead of skilled and unskilled labour, Marshall had to coin new phrases to bring out the distinction, namely generalised and specialised ability. When the major part of the work once done by a skilled labourer was taken over by a machine, the function of the labour remained only to look after that machine. For this no very great skill or ability of a high order or technical character was necessary; what was needed was a general knowledge of the working of a machine and a robust common sense. This Marshall called generalised ability. By specialised ability he meant that sort of knowledge or skill which demanded a special training, as that which was required by old artisans or skilled labourers in previous times. The unskilled labourers of England and America possess a considerable knowledge of the general working and techniques of machinery in general, and so are in no way inferior to the once skilled labourers.

On account of the great demand for this type of labour, and thanks to the admirable organisation of the working classes under their respective organisations, their wages, once very low, have now increased considerably, and at the same time the working hours have become fewer. In spite of high wages, and shorter hours, English labour is still cheap to the English employers, due to its high efficiency. In this respect America is easily the first.

The working conditions in factories have improved a great deal, and the employers on the one hand and the State on the other have been prevailed upon to shoulder many of those burdens which in the 18th and 19th centuries were borne by the labourers' Benefit Societies, or the early trade unions. The housing conditions have improved remarkably, thanks to the Co-operative movement, which has enabled the English labourers to have the

satisfaction of owning their places of residence. The co-operative store movement in England has done more for English labour than many other things put together. Labourers of the world are now in a better and much stronger position to bargain with their employers, as they and their leaders have realised full well *the importance of collective bargaining.*

But although the condition of working classes has improved from the point of view mentioned above, it is nevertheless a fact that there is to-day a wide gulf between the labourers, as such, and those who give employment to them. During the guild economy, the difference between the status of an apprentice and that of the master craftsman was practically nothing as compared to that between labourers and capitalist employers to-day. In the guild economy, an apprentice after remaining with the master for seven years could become a journeyman, and then, after a few more years, could set up his own independent business anywhere he pleased. Labour had not been divorced from capital. In modern times, however, all that has changed. We find a large class consisting of people who depend for their daily or weekly wages upon a much smaller class of people, whose interests, though often identical with those of the former, are sometimes diametrically opposed. The labourers no longer command productive capital, as owing to the vast changes in the method of production and sale of the commodities produced, it has become entirely impracticable for them to control production, and own productive capital.

In India, for reasons mentioned in connection with land, the condition of labourers has not improved. In all such matters it should be remembered that India is now passing through the stage that England and other European countries and America passed more than a century ago. India has, no doubt, taken some advantage from the experiences of these countries, and, consequently, is in a better position to adjust herself to changed circumstances speedily and without as much suffering and travail as fell to the lot of other countries; but still the earlier stages have to be gone through. Then, on account of the appalling illiteracy of the masses, labour is not yet in a position to derive any great benefit from the experience of labour in other parts of the world. The vast extent of the country, and differences in religion, social customs, language and general outlook, from one part of the country to another, are other difficulties in the way.

With all that, it cannot be denied that even in India labour has, on the whole, benefited at least in so far that its general outlook has widened, and there is a desire, now rapidly increasing for a change. The Indian National Congress, especially

under the leadership of Mahatma Gandhi, has contributed very largely to the awakening of the masses. The Congress socialists have done much to inculcate a sense of self-respect and self-confidence among rural and urban labouring classes. The spectacular success of a socialist State like Russia in the present war, both in the military and political fields, is replete with interesting potentialities for the future. The movement for the uplift of the masses, and the general improvement in the condition of cultivators and labourers is expected to gather a great momentum after the close of the present war.

Capital The nineteenth century may rightly be called the century of capital. During these one hundred years, not only the demand for, but also the supply of capital increased tremendously. The costly machines, elaborate means of transportation, massive buildings and modern amenities of city life, all created an enormous demand for capital. But the same forces which gave rise to this great demand, also enabled the people to accumulate, and then invest, an equally great amount of wealth. The demand for capital increases only in Arithmetical Progression; but if capital is invested and then reinvested, its supply has a tendency to increase in Geometrical Progression. Given the power, the will, and the opportunities to save, capital can go on increasing to any extent, provided that the demand for it also goes on increasing. It should not be forgotten that capital can increase only through a demand for it. During the 19th century, therefore, both the demand for it and its supply went on increasing, with a tendency for its supply to increase faster than its demand. The rate of interest, therefore, instead of rising showed a tendency to fall. At first England, then some European countries, and lastly America performed the function of the suppliers of credit to the world. On account of the phenomenal development of banking and the Stock exchange, it became very easy for capital to move from one place and one industry to another. The system of joint stock companies enabled those who had command over capital but had no capacity for organising a business, to earn a decent profit and interest on their capital.

The amount of capital in India did not increase much on account of causes discussed in another connection. The trading community of India engaged in the export and import business, and in selling goods imported from abroad, prospered very largely, and whatever capital is found in India is mainly distributed among these classes. There is no distinct class of manufacturers, or capitalist employers as such in this country, for the obvious reason that the country is still mainly an agricultural country. In big industrial cities like Bombay, Ahmedabad, Calcutta, Madras, Cawnpore, Nagpur and a few more, there is a special class of manufacturers, but it is nothing in importance as compared to

the extent of the country. During the last decade this class of manufacturers has come into greater prominence.

Banking has not developed in the country to the extent needed. Commercial banking has kept pace with the commercial development of the country, but there are no industrial banks, and no provision for industrial finance. The agricultural capital also has not increased much during the last century as the method of cultivation is still primitive, and costly implements and tools are not used as the cost is almost prohibitive, keeping in view the general financial position of the agriculturists. Social customs take time to disappear in every country; but in a conservative country like India they will take a still longer time even to be modified in the right direction. For this reason, a large amount of money, or potential capital, is spent over ceremonial functions and productive work like railways, canals etc. have had to depend for capital on foreign countries. Marshalls' remark in this connection are telling. He writes 'In India we find people who do indeed abstain from immediate enjoyment and save up considerable sums with great self-sacrifice but spend all their savings in lavish festivities at funerals and marriages. They make intermittent provision for the near future, but scarcely any permanent provision for the distant future; the great engineering works by which their productive resources have been so much increased, have been made chiefly with the capital of the much less self-denying race of Englishmen'.

Organisation and Enterprise Economic progress has brought these two factors of production very much in the fore front in modern times. Labour in the ordinary sense is associated more with the body than with the mind; while organisation and enterprise are associated more with the mind than with the body. Obviously, therefore, economic progress has affected even to a greater extent that part of labour which has to do more with mind than with body. In ancient and mediaeval times, even upto the Industrial Revolution, there was not much scope for the play of superior mental faculties, as the problems that man had to deal with were not at all complex. But with the advent of the modern era, conditions fundamentally changed. Markets became wide and problems of production highly complicated. Not everyone could handle such problems and as the risk involved in production increased, not everyone could undertake those risks. A separate class of organisers and enterprisers, therefore, emerged, whose members made it their special concern to handle such problems.

As long as this class was small, the earnings of its members were very large indeed, but with continued economic progress this class has got sufficiently enlarged, and, consequently, the earnings of its members are now not so large as they used to be

some time back Organisation, even, has now been reduced more or less to a routine, and the services of organisers are now valued in the same way as those of any other agent of production. They too have got their demand and supply price. But in certain fields of industry their earnings are still enormous, and they are determined not by the force of demand and supply but by the element of personal rent.

The risks of business have in one sense increased, as the extent of markets for commodities has become world wide, and during the period that necessarily elapses between the production of goods and their actual sale, any untoward thing may happen. During very recent times a new element, in the form of currency manipulation, has been introduced which has created a great deal of uncertainty in the calculation of business men. But in spite of all this, the business morality and personal integrity has increased to such an extent that the reasonable calculations of distant producers are rarely falsified.

- In India very little progress has been recorded in this direction. This has been due, among other causes, to the defective system of education prevalent in the country. On account of foreign medium of instruction, the habit of original thinking has not developed among Indians generally. The natural intellect has had to contend against heavy odds, and it has rarely come out unscathed. Wherever it has, we find new paths chalked out and original schemes placed before the world. Business opportunities have not been many in the country, and so business intellect has not developed to any appreciable extent.

Standard of Living. Economic progress and improvement in the standard of living are inseparable from each other. The ultimate aim of all economic activities is the satisfaction of one's economic wants. As pointed out above, though in the beginning of man's economic evolution wants give rise to activities, yet, in succeeding stages, his activities begin to give rise to new wants. Thus the circle goes on widening, and with the growth of new wants, and the development of new methods of satisfying them, man's standard of living also goes on rising. Consequently, during the last century, the standard of living of all classes has undergone a marvellous change. Not only have the poorer classes begun to take more wholesome and nutritious diet, live in cleaner and more ventilated houses, and put on more decent clothes, but their general outlook on life has also considerably changed. The old system of serfdom having disappeared, the masses have developed a freedom of thought and action which was totally absent before.

1 Among the well-to do classes, the rise in the standard of living is manifesting itself in slightly different ways. Ornamental

buildings and gaudy dresses are gradually going out of use; while plain but commodious buildings, and plain but neat and decent dress is becoming the order of the day. Every one, in whatever walk of life, wants to eat, live, dress and work well, and there is a general spirit of emulation in this regard. But where the desire for the satisfaction of material wants is not controlled by a moral or religious bent of mind, the result has not been very happy. Emulation has degenerated into envy and jealousy, and an uncontrolled desire for more material gains has led to internal conflict and external wars.

Even in India, a very slow moving country, we find signs of a rise in the standard of living. There is a general desire among all classes of people for better living which includes everything. Western education, and association with western modes of thought, has contributed largely to this state of things. Where income has not increased, but, due to the desire for better living, expenses have gone up, the result has been harmful. But in many cases, men have been goaded on to greater efforts for the satisfaction of enlarged wants. It is a delicate question whether this change in the people's outlook is for better or for worse. But if properly controlled and kept within limits, the present discontent with the existing state of things in political economic, and social spheres is bound to be conducive of much good for the country under the present circumstances.

A rise in the standard of living increases efficiency, which enables a man to earn higher wages. These in their turn help him in maintaining or even in still further increasing, the standard of living. This cycle can go on for a considerable time, if the person concerned can maintain the initial momentum and does not fritter away the increased wages in useless or even injurious pursuits, and does not allow himself more than ordinary leisure. In the industrial districts of India, labourers have been observed sometimes spending their increased earnings in intoxicating liquors and drugs, and have failed to benefit from a rise in wages. It is really for this reason that prohibition is a great and urgent necessity for India.

Appendix A.

FOREIGN TRADE OF INDIA.

There is ample evidence of India's trade relations in ancient times with distant lands. Egyptian mummies belonging to 200. B. C. are supposed to have been found wrapped in Indian muslin of the finest quality. There was a very large consumption of Indian manufactures in Rome. The muslins of Dacca were known to the Greeks under the name of Gangetika among other countries with whom India traded were China, Persia, and Arabia. The trade of India, as indeed all ancient trade, was in rare and costly commodities of comparatively great value in small bulk. The principal articles of export were textile manufactures, metal wares, ivory, perfumes, dye stuffs, spices, etc and the imports consisted of minerals, of which there was a deficiency in India, such as brass, tin, lead, and also wines horses, etc. There was a net import of large quantities of gold which suggests an excess of exports over imports.

During the Mohammedan Period, the communications established with India through the north west frontier, the improvements in the means of transport and the patronage of the Mogul Courts imparted a considerable stimulus to Indian-industries, particularly to those which produced luxury goods and consequently the foreign trade developed to a great extent.

Towards the end of the 15th century the discovery of an all-sea route to India via the Cape of Good Hope, established the fateful contact between the East and the West. This was followed by the rivalry among the various powers of Western Europe, the Portuguese, the Dutch, the English and the French. The British were successful in the struggle and they established their power in India. But by this time they were attracted by the linens and calicoes, the jewels and embroideries, woolen and silk manufacture and not by the raw materials. It was only in the 18th century that there was an agitation against the Indian goods in England and India came to be looked upon as a valuable source of raw materials which changed the nature of India's foreign trade. The first half of the nineteenth century witnessed a remarkable change in the character of the trade between India and England. Hence forward, India began to receive these very commodities as imports which had hitherto bulked so largely in her export trade, namely cotton manufacture and sugar. Since this time there has been a steady growth in the volume of the export and import trade due to the establishment of peace and order, improvement in the means of communication and transportation opening of the Suez Canal.

Now after going through the history of Indian foreign trade let us enquire into its nature and characteristics

As we all know India is pre-eminently an agricultural country and that fact dominates the course of its trade. The great export staples are the produce of the soil — cotton, jute and seeds. In the past, the out run of the soil was subjected to periodic checks from famines arising from the failure of rains. But the spread of irrigation produced a great change. All over India progress is being made in irrigation works to give a much greater stability to Indian agriculture.

In spite of being an agricultural country, she ranks at the International Labour office at Geneva as one of the great industrial countries of the world. Her manufacturing industries are few in number and are concentrated in few areas, but they are of great importance. The largest is the cotton textile industry, mainly concentrated in Bombay, followed by Ahmedabad, Sholapur and Nagpur. Next in importance is the jute industry. Raw jute is a virtual monopoly of Bengal and mills are situated in and near Calcutta. A very large proportion of jute manufacture is exported. The metallurgical industry is of more recent growth and is mainly concentrated at Jamshedpur. This industry is mainly a home industry, though large quantity of Indian pig iron are shipped to the Far East. Indian Sugar industry is of recent growth but it has developed by leaps and bounds, and India now has not to depend much upon foreign imports. Therefore, whilst India is still in the main an agricultural country, three quarters of her population is drawing their sustenance from the soil, her manufacturing industries are of large and growing importance, and their prosperity every year affects in an increasing degree the general prosperity of the people.

Despite the large industrial advance India's prosperity depends, in the main on good harvests — and satisfactory prices for her commodities. With the increase in irrigation facilities, and with the minimisation of the risk of famines, there has now generally begun to be sufficient produce to enable India to export her commodities to foreign countries which helps it to maintain a fair 'balance of trade.' Before the war broke out in September 1939, India occupied no mean place on the map of world agriculture. She led the world in the production of rice, as she did in the production of sugar cane, of which as well as tobacco she was the third largest producer in the world, while in the production of raw cotton she was second only to the United States of America. Taking oil seeds, she stood first in the production of rape-seed and third with regard to linseed, of jute she enjoyed a virtual monopoly contributing 99.5

p. c of the total world production As for beverages India produced both tea and coffee, her exports of tea during the three pre-war years 1936-37 to 1938-1939 being on an average about 328 million pounds per year. In the quantity of fruits she was poor but, in their variety, perhaps no country could claim to be richer.

The following tables will clearly show the exports and imports during the year 1937-38.

EXPORTS OF MERCHANDISE.

		(In thousands of Rs.)	
		1937-38.	1938-39.
Jute raw	...	14,71,90	13,39,67
Jute manufacture	...	29,07,76	26,26,11
Cotton raw and Waste	...	29,77,26	24,66,65
Cotton manufacture	...	9,29,30	26,66 65
Tea	...	24,38,69	23,29,05
Seeds	...	14,18,65	15,09,22
Gram pulse and flour	...	9,48,89	7,74,12
Leather	...	7,25,42	5,27 68
Metals and ores	...	6,12,60	4,91,04
Hides and Skin, raw	...	5,04,10	3 84,67
Wool, raw and manufactured	...	3,72,37	3,85,95
Paraffin Wax	.	51,34	36,25
Oil Cakes	...	2,42,58	3,01,20
Lac	...	1,62,18	1,26,65
Wood and timber	...	29,50	26,66
r Coffee	...	54,59	75,11
Tobacco	...	1,99,61	2,75,63
Rubber Raw	...	83,83	71,58
Mica	...	1,48,40	1,14,12
Fodder, bran and pollards	...	9,46	8,96
Oils	...	1,01,03	1,03,37
Spices	...	93,48	78,66
Coir	...	1,04,44	96,01
Dyeing and tanning substances	...	66,87	59,11
Other articles	...	...	...
		<hr/> 180,92,42	<hr/> 162,79,16

(In thousands of rupees)

	1937-38.	1938-39.
Cotton and cotton goods	27,44,91	22,66,20
Machinery and Mill work	17,15,36	19,04,78
Oils	18,69,96	15,62,41
Metals and ores	13,39,31	10,86,52
Vehicles	8,92,30	6,68,20
Instruments, apparatus and appliances	6,13,36	5,85,31
Artificial Silk	4,87,49	2,23,62
Wood raw and manufactured	4,14,87	2,81,90
Paper and paste boards	4,14,71	3,22,93
Dyeing and tanning substance	3,94,06	3,11,20
Chemicals	3,32,82	3,05,29
Hardware	3,31,22	2,51,27
Wood and timber	2,98,26	2,86,69
Silk raw and manufactured	2,85,63	1,94,15
Drugs and medicines	2,36,17	2,20,53
Liquors	2,30,34	2,10,83
Rubber manufactures	1,88,99	1,40,56
Glass and glass ware	1,51,88	1,25,12
Arms ammunition and military stores	1,27,78	50,17
Paints and painter's material	1,01,86	88,99
Tobacco	85,48	1,04,55
Stationery	81,02	67,04
Manures	79,67	1,05,17
Toilet requisites	67,85	66,06
Books printed etc.	61,78	58,92
Salt	55,77	37,80
Cutlery	30,59	25,64
Matches	20,44	23,52
Sugar	18,60	45,58
All other Articles	-	-
	<u>1,73,78,76</u>	<u>1,52,32,75</u>

From these two tables it becomes quite clear that there is (i) preponderance of raw materials in export and of manufactured goods in imports and (ii) excess of exports over imports

The effects of these characteristics are far reaching. The development of foreign trade has greatly affected our agriculture, the demand for a large number of Indian agricultural products has, to a great extent stimulated their cultivation. For example, the rise in the output of such agricultural crops as oil seeds, cotton, jute and tea, has been very largely due to a flourishing export trade. This has, however, not been an unmixed good. The production of commercial crops for export has often retarded the production of food crops which has not kept pace with the rise in population and progress of exports.

On the other hand, the import of machinery has helped the establishment of modern industries in India, such as the cotton, jute and steel industries. But the growth of imports in most other articles has been other than beneficial to Indian Industries. The imports of sugar have seriously affected the home industry for a long time. The imports of cotton and woollen manufacture, though they have not actually caused a decline in the home industries, have certainly retarded their progress. To put briefly, the growth of our export trade has, on the whole, done some good to agriculture but the growing import trade has been mostly injurious to our industries.

Direction of Indian's Trade:— A close study of India's export and import reveals that during the pre-war period there was a tendency for both the import and export trade to be diverted from the United Kingdom to other countries. As regards the distribution of imports, the United Kingdom supplied at the close of the last century as much as 69 per cent of the Indian imports. The share of Germany was only 2.4 per cent and that of United States 1.7 p. c. Japan being nowhere with her 0.6 p. c.

By 1913-14 we notice that a remarkable change has taken place. While the share of the United Kingdom has come down to 64.1 p. c, the German share has increased to 6.9 p. c, and those of Japan and the United States to 2.6 p. c. each. Thus Germany occupies the second place to the United Kingdom in 1913-14. The share of Belgium, which supplied 3.9 p. c. of the imports in 1903-1904 was reduced to 2.3 p. c. while Java on account of her increased exports of sugar to India shot ahead and occupied the third place, contributing 5.7 p. c. of the total imports in 1913-14.

After a temporary and partial recovery on the import side in the early post war period, the United Kingdom experienced a

set back and the progressive decrease in its share in the import trade was accentuated in 1926-27 by the prolonged coal strike which seriously affected its industries, its share being 47·8 p c of the total import trade that year. There was a further decline to 42·8 p c. in 1929-30 37·2 p c in 1930-1 and 35·5 p c. in 1931-32, the decrease in the last two years being accentuated by political situation in India. After that there was recovery in its share in the trade of India. This recovery was partially lost in 1936-37 and there was a steady decline in her share being 38·4 in 1936-37 due to the reappearance of old rivals and the restoration of more normal condition of competition in the Indian markets. Japan increased her share from 14·2 in 1933-34 to 17 p c in 1936-37, while the participation of the U. S. A. declined from 6·7 p. c. 1935-36 to 6·5 p c. in 1936-7. Germany advanced her share in imports for 9·2 p. c. to 9·7 p c. in 1936-37.

Export — In the pre-war period export also showed a similar tendency towards diversion from United Kingdom. At the beginning of the present century, roughly speaking 29 p.c. of the exports went to the United Kingdom 25 p c to continental Europe 24 p c. to the Far East and 7 p c to United States and remaining 15 p c. to other countries. By 1914 the United Kingdom's share was reduced to 24 p.c., that of continental Europe rose to 29 p c, the Far East took only 17 p c, owing to the fall in the exports of opium and yarn, the share of the United States rose to 9 p c and that of other countries to 21 p c it will thus be seen that during this period continental Europe gained while United Kingdom lost. The loss in the eastern market was made good by the gain in those of other minor countries. Germany which was third in the list in 1900 rose to the second place in 1914. Japan showed a similar improvement in her buying capacity and advanced from the sixth place to the third as a buyer of Indian goods China, on the other hand lost the second place which she had occupied in 1900 and ranked sixth in 1914.

During the war, the tendency was for a temporary reversion of the trade to the United Kingdom and the British Empire as a result of the war-time purchases and special measures taken to facilitate them, including restrictions on trade with neutral countries and the grant of credit facilities to some of the Dominions. All this was reflected in an increase in the share of United Kingdom in the export trade from 23·4 p c in 1913-14 to 29·2 p. c. in 1918, while the share of the British Empire as a whole increased from the prewar average of 41·1 p c to 51·7 p c. Germany disappeared from the market altogether as a buyer from Indian market. The shares of France and Belgium were also reduced on account of the occupation of their territories by Germany, Japan and United States on the other hand, increased

their share from 9·2 p. c. and 8·9 p. c. in 1913-14 to 12·1 and 13·8 p. c. respectively in 1918-19.

After the war there was a definite tendency towards diversion from the United Kingdom, which diminished its share to 21·4 p. c. in 1926-27 as compared with pre-war figure of 23·4 p. c. After temporary increase (25·0 p. c.) in 1927-28 there was again a decline to 21·4 p. c. in 1928-29. There was rise from 21·8 p. c. in 1929-30 to 24 p. c. in 1930-31, 27·9 p. c. in 1931-32 and 32·2 p. c. in 1933-34. After having declined to 31·5 in 1935-36, it again rose to 32·2 in 1936-37 which showed a considerable improvement that year. Japan showed a striking improvement and the export increased from 7·2 to 15·7 p. c. The share of U. S. A. which had shown some improvement in 1935-36 again receded and was 9·5 p. c. in 1936-37. Germany had smaller proportion of the export trade, namely 4·7 p. c. Belgium contributed 3·6 p. c. to India's trade in 1936-37 the percentage of France being 3·9 p. c.

To sum up the general trend of the Post War developments of India's foreign trade, the pre-war tendency of a diversion of both the export and the import trade from the United Kingdom reasserted itself more forcibly than ever, especially on the side of imports, until 1931-32. After that there was recovery in its share especially in the export trade of India. The recovery was partially lost in years preceding the present war, in the case of import trade, U. S. A. and Japan being the most formidable competitors of England in the Indian market. Germany also regained her former position in respect of imports.

The position at Present—(War II and Indian Trade).

During the present war India's trade has been cut off from Germany, Italy, Czechoslovakia, Poland, Belgium, Holland, Norway, Sweden, France and Japan and also with Malaya, Dutch East Indies and Burma. Trade with Empire countries has greatly increased. Taking 1938-39 as the base, export of Indian merchandise to Empire markets increased by 34% in 1939-40 and 47% in 1942-43. Imports have, however, fallen much below the pre-war level and the balance of trade has improved to Rs. 64·5 crores in 1942-43 compared with a negative balance of Rs. 3 crores in 1938-39. While the total volume of trade with U. K. has not shown any increase on the whole, and has actually declined some what in 1942-43, the balance of trade in India's favour has improved from Rs. 9 crores in 1938-39 to Rs. 40 crores in 1941-42 and stood at 201 crores in 1942-43, due to both an increase in exports as well as a decline in imports owing to big purchases by His Majesty's Government in the Indian Market, the actual favourable balance was even greater and led to the accumulation of a large balance of sterling with the

Reserve Bank in London. Export and import trade with U.S.A. have doubled in value compared with 1933-39 and the balance of trade with U.S.A. has turned favourable to the extent of about Rs. 9 crores. Import from U.S.A. into India now rank in value only next to those from U.K.

The whole political situation is changing with such a bewildering rapidity that some of the old trends may be completely reversed and some new ones make themselves prominent. Trade with the Middle Eastern countries notably Egypt, Iraq and Arabia has received a stimulus due to the cutting off the Japanese supplies and improvement in the war situation in the Middle East. The Empire countries still constitute a large bloc with comparative freedom from exchange restrictions and drawn together in pursuit of a common aim; and India's trade with them may be expected to show a steady upward course.

Appendix B.

Consolidation of Holdings.

It is a well-known fact that the agricultural population of India is extremely poor. The majority of agriculturists are peasant farmers who eke out a living from their incredibly small holdings with great difficulty. The incredibly low standard of living of the rural population is due to the fact that the standard of cultivation of our country is extremely poor. The various factors capable of improving the yield of crops, such as better varieties of crops; better control of pests and diseases; better control of water supply for crops; prevention of soil erosion; better use of manures and fertilisers; better implements cultivation; and better systems of cropping, in particular better rotations and the use of more fodder crops with the view of obtaining more farmyard manure have been tackled and considerable progress has been made, but in spite of all efforts the agriculturists' income has not appreciably increased. He is still the poor man that he has always been. This is due to the fact that he cultivates a small holding. Not only are the holdings extremely small but these are fragmented and the plots are scattered over a wide area. Whatever improvement is effected in agricultural technique is offset by the disadvantages suffered owing to smallness of holdings and excessive fragmentation. The holdings are not compact areas but consist of a large number of tiny plots,

The evils of a system of scattered and fragmented holdings are too well-known to need any detailed elucidation. It has been

the bane of the agricultural system in India. It has prevented agricultural improvements and impeded progress. It has depressed the standard of living, helped unemployment and it has increased the costs and wastes of cultivation. It has made it difficult for India to adopt the methods of scientific agriculture which have revolutionised the systems of cultivation in the West. The system is responsible for a large waste of land in boundaries and a needless waste of time, money and effort. It involves large losses in human and cattle power. It prevents intensive cultivation, encourages agrarian disputes and litigation and makes protection of crops against theft and cattle almost impossible. Cases are not rare when even wells are partitioned by screens or bars at the top. Cultivation becomes costly and difficult. The cultivator's energy and attention are divided and no permanent improvements are possible under the circumstances. All enterprise is chilled and cultivation is reduced to a gamble.

The Agricultural Commission in 1926 made an exhaustive enquiry into the problem and it found the position serious in almost all the Provinces of India. But the position in the United Provinces was actually found to be the worst as compared with the rest of India. Basing its calculations on the census figures of 1921, the Commission found that the number of cultivated acres per cultivator was as follows :

Bombay	12.2	Bengal	3.1
Punjab	9.2	Bihar & Orissa	3.1
C.P.	8.5	Assam	3.0
Madras	4.9	U.P.	2.5

Necessity of Consolidation.

The consolidation of holdings is an indispensable condition of agricultural improvement. Without an economic holding the farmer cannot utilise his resources properly. So striking indeed are the benefits of consolidation that if all the ordinary measures of rural reconstruction were put into one scale and consolidation of holdings into the other, consolidation would outweigh the other. Consolidation of holdings into compact blocks will enable intensive cultivation to be carried on. It will pave the way to the introduction of scientific agriculture. It will make cultivation easier by saving waste of time, labour and money in moving from field to field, from one end of the village to the other. It will encourage the investment of capital in land, lead to the sinking of more wells, save losses of land wasted in boundaries irrigation and cattle trespass. It will thus help to reduce litigation, provide better watch on crops and prevent destruction of crops by stray cattle and wild animals. Cultivation will become less

costly and more profitable under improved methods of farming. It will increase the facilities of communication and create a new community spirit in the village. It will also provide parks, school grounds, playing fields, tanks, cattle yards, manure pits, village roads and other amenities of social life in the village.

Methods of Consolidation

Various methods have been tried in the different provinces of India to solve the problem. The best solution is the co-operative consolidation of holdings which has already worked wonders in the Punjab since its introduction in 1920. The Punjab has been exceptionally lucky in its Registrars. With such enthusiastic missionaries of co-operation as Calvert, Darling and Strickland, the Punjab has gone ahead in many lines of co-operation particularly in the co-operative consolidation of holdings. The comparative homogeneity of soil and the simplicity of its tenure have also helped consolidation immensely in the Punjab. The Punjab is essentially a province of peasant proprietors. As a result of patient and determined work, the co-operative department there has achieved striking results. The movement has now become very popular and the work of consolidation, which began on a very modest scale, is now acquiring momentum. In the Punjab the movement for the co-operative consolidation of holdings began in the year 1920-21, and by the end of the year 1940 there were 1506 societies. The total extent of land holdings consolidated upto the end of that year was round about 13 lakhs of acres. During that year 1.44 lakhs of acres were consolidated. The Government has provided special trained staff of inspectors to carry on propaganda in order to persuade holders of fragmented pieces to consolidate. More than 800,000 acres have already been consolidated in the Punjab and there are now more applications for consolidation than can be suitably handled by the department.

In the Central Provinces and Berar also there has been a fair amount of consolidation work, but it is not through co-operative societies. The work is carried on there by a special staff of the Government under a special Act which provides for a measure of compulsion. The Government of the Central Provinces in addition to the co-operative consolidation of holdings as in the Punjab, has gone a step further by legislating for compulsory consolidation on a limited scale and under suitable safeguards. The C.P. Consolidation of Holdings Act passed in 1928, provided that of the total number of persons applying for consolidation, not less than half of them must be owners owning not less than $\frac{2}{3}$ of the land. In the Chattisgarh division alone, 11 lakh acres of land have been repartitioned in 1172 villages, and the average size of a plot was raised from $\frac{1}{2}$ acre to 3.2 acres and the total number of plots brought down from 23.7 lakhs to 3.54 lakhs.

In the field of consolidation in the United Provinces, the co-operative department along with a few private individuals, has done the pioneer work. So far the work has been carried on without any special legislation, by means of voluntary persuasion alone. The first experiment was made in the Meerut Division and propoganda was started in 1924-25 for popularising the idea of consolidation in the three districts of Saharanpur, Muzaffarnagar and Bulandshahr. The first society in U. P. was registered in the Saharanpur District in the same year and since then, the work has steadily but slowly developed. The work everywhere was seriously handicapped from the very beginning by the lack of necessary staff. The Registrar of co-operative societies has pointed out that one great difficulty was the cultivators' desire for soil of every class for the proper rotation of his crops. An average village consists of three classes of soils, viz. clay loam, sandy loam and rice land. The cultivator naturally wants all the three classes for his cultivation. He clamours for his share in every class of soil. Irrigation facilities are also unevenly distributed in different parts of the village and hence the allotment of equi-marginal irrigation facilities is a stupendous task. All this makes it difficult to gather all the fields of a cultivator in one compact block and work has to be limited to putting his total fields of one particular class into one block. Thus he would have as many separate blocks as there are kinds of soil in the village. This is good so far as it goes. It is certainly better than what formerly existed. At the same time it must be admitted that it is far from the best solution of the problem.

The number of consolidation of holdings societies has gone up from 182 to 218 of which Saharanpur has 52, Bijnore 98, and the rest are spread over ten other districts. There were 15 supervisors in charge of the work. The number of plots have been reduced from 21042 to 2870. The total area consolidated so far is about one lakh bighas. The advantages of consolidation of holdings are increasingly being realized. In the U.P. the societies are registered only when the proposals for consolidation are complete and have been accepted by every member, and possession has been actually transferred under the scheme. The work is done by persuasion. Work is now being carried on in 13 districts of the province viz. in Bijnor, Moradabad, Bareilly, Badaun, Bulandshahr, Agra, Saharanpur, Rai-Bareilly and Muzaffarnagar, Etawah, Meerut, Fatehpur and Sultanpur. Two facts have greatly retarded our progress. The first is the inadequacy of our staff. The second factor which made for slow progress is the inherent limitation of the method of voluntary persuasion and the total absence of compulsion. As the unanimous consent of all the members is a condition precedent to the registration of a society, it has very often happened that the obstinacy of one or two members has frustrated or upset the

patient and laborious work of months together. For these reasons the U.P. Government have recently passed a new legislation viz. the U.P. Consolidation of Holdings Act (VIII of 1939) and it is expected that the new law will give a considerable impetus to the movement in the near future. Although it has introduced a limited amount of compulsion yet we must always recognise that we cannot, and we ought not to, rest on compulsion alone. Compulsion must be a supplement to propaganda and education. It cannot be a substitute for it.

The U.P. Consolidation of Holdings Act of 1939, seeks to provide for the development of agriculture through consolidation, which is defined as the re-distribution of land between the cultivators in such a way as to make the cultivated area more compact. The proprietor of a village or mahal or the Lambardar or the cultivators of more than one-third of the cultivated area in a village may apply for consolidation to the consolidation officer to be appointed by the Local Government. The Collector, on his own initiative, may also direct consolidation proceedings—after due notice to the parties concerned. The Consolidation Officer shall make every attempt to ensure that, as far as possible, each cultivator is given land suitable for the cultivation of the principal crops grown in the village and that the valuation of the holdings allotted to a cultivator is equal to the valuation of his original holdings. Where this is not possible, monetary compensation shall be awarded to equalise values so that the cultivators who get more value for their original holdings are to pay compensation to those who get less. After the scheme is prepared it shall be published both in the Consolidation Officers' office and in the village where it can be inspected by anybody and any objection to it may be filed within one month from the date of publication. Such objections shall be considered and decided by the Consolidation Officer in the village in the presence of the parties themselves and the scheme shall be modified as may be found necessary in the light of the objections submitted. This is a very important provision because the legislature felt that the consolidation scheme cannot be satisfactorily framed except in the village and in consultation with the cultivators after they had sufficient time to discuss among themselves how a consolidation can best be made. The work demands *infinite patience and the maximum of sympathy and tact*. No man should be left to grumble and the grievance of every one should be removed, as far as it is humanly possible to do it.

The act has not yet been enforced but it is hoped that the work will now proceed rapidly in the U.P. and that consolidation will have substantial results to show in the near future. It is clear that voluntary consolidation through the co-operative department or compulsory consolidation through the new Act

will both work on the positive side of the problem, *viz.*, the consolidation of holdings already scattered and fragmented. The preventive side of the work must be equally, if not more important, *viz.*, the prevention of holdings now consolidated from being fragmented again in the future by the process of inheritance. Unless this is provided for, we would only be ploughing the sands on the seashore and all our work would lead to no permanent results. To that end, unfortunately we have not made progress yet.

Madras has taken the lead in India, and is maintaining it, in several branches of co-operative activity, but consolidation of holdings is not one of them. For over twenty years this subject has been talked about in this province but little has been achieved. By 1940, there were altogether 22 societies of this type in 13 districts. A special staff of Inspectors recruited from the Revenue Department was working in the districts of North Arcot, Trichonopoly, Nellore, West Godavari, Anantapur and Ramnad. In North Arcot 234.01 acres consisting of 1009 plots were consolidated. While the minimum holding before consolidation was 0.01 acre, it was 0.14 acres after consolidation. The number of persons who resorted to consolidation was 112. No more progress was made elsewhere, the total extent of land consolidated in all the other districts being only about 142 acres.

Why is it that Madras lags so far behind, though the subject had been mooted more than 20 years back? Fundamental doubts have been raised as to the need for consolidation of holdings in Madras by a section of administrators who hold that the evils of fragmentation are not so serious in this Province as in the Punjab or the U.P. It is often argued that fragmentation is inevitable, and also equitable, in a province like Madras which has a greater variety of soils, and of water resources than the Indo-Gangetic plain with its alluvial loam, more or less homogenous stretching for miles and miles, and its canal systems. We have often, it is said, in one and the same village alluvial, black cotton soil, red sandy and saline soils, of various degrees of fertility and reacting differently to river and well water. This diversity facilitates and necessitates the cultivation of a variety of crops, which any farmer would like to grow for himself not only to cater to his different needs but with a view to spread the risks from pests and uncertain weather. Again some waste or pasture land, if not also wood land, is considered as an essential appurtenance to arable land, not only in this country but in all other countries.

3. The above arguments in favour of fragmentation deserve careful consideration at the hands of agricultural reforms. Surely it cannot be difficult to divide any South Indian village in the plains into three or four blocks of arable land with different degrees of

fertility or lying in different levels or irrigated by different systems, and proceed to reallocation of holdings in such a way that nobody need be refused any particular kind of arable land of which he had owned a fragment unless it was too small and it was better to allot a compact holding of workable size in one block. As for waste land or pasture or wood land, no reformer contemplates the pooling of all of them together just as no one would mix up wet and dry and garden lands. Every owner of plots in these lands is bound to carry on much better if he gets a compact field in each in place of a number of fragments. It is indeed the only chance of making improvements in them.

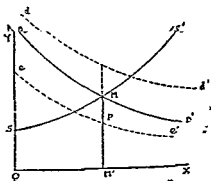
Appendix C.

DIAGRAMMATIC PRESENTATION OF THE DEMAND AND SUPPLY THEORY OF VALUE UNDER COMPETITIVE CONDITION.

(a) Market value :—

This means that the supply of a commodity can neither increase in response to an increased demand for it, nor can it be withdrawn if the demand for it declines. The existing supply is fixed for the day at least. This is usually the case with articles of a perishable nature, like fresh vegetables, fruits, fish, etc. What happens in such cases is that the price of the commodity increases with an increase in the demand and decreases with a decrease in the demand. This is represented diagrammatically as under.

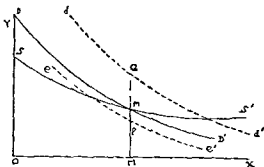
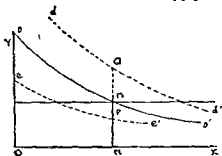
The normal demand and supply curves DD' and SS' intersect each other at M' . This means that usually OM' amount of the commodity is supplied and the same amount demanded at MM' price per unit. It, however, on a particular day, the demand for the commodity rises, which is shown in the above diagram by moving the old demand curve to the right, and, as mentioned in the beginning, the supply of the commodity cannot be increased, then the existing supply will sell in the market



at the enhanced price represented by QM' . Q is a point on the new demand curve dd' represented by dotted lines. There being no time for the supply to increase, the existing supply will sell at a higher price per unit. The increase in the price is measured in the diagram by QM .

If, however, the demand falls, the demand curve may be moved to the left. The new demand curve under such conditions is ee' ; and it meets MM' at P . PM' is, therefore, the price at which the existing supply OM' , which cannot be withdrawn in spite of a fall in price, will sell per unit.

It should be remembered that the form of the supply curve that is to say the nature of the conditions under which a commodity is being supplied, does not affect the principle discussed above. In every case an increase in the demand will increase the price of the existing supply and a decrease will lower it whether the commodity is being produced under increasing, constant or diminishing cost. The above diagram shows that the commodity in question is being produced under conditions of increasing cost. That is why the supply curve is ascending. For the sake of convenience the other two curves, under conditions of constant and diminishing cost are also given below.



(b) Long period value

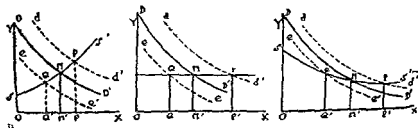
Here we suppose that there is sufficient time for the supply to increase or decrease in response to an increase or decrease in the demand for it. Its supply will increase if there has been an increase in the demand for it, and will decline if there has been a falling off in the demand. So we are faced with three possibilities. If the commodity is subject to increasing costs, its price will ultimately rise if it begins to be produced in larger quantities; it will remain the same if it is subject to constant cost; and it will fall if it is being produced

under conditions of diminishing cost. On the other hand, if under the influence of a fall in demand, a smaller quantity of the commodity begins to be produced, then its price will fall if it is subject to increasing cost; it will remain the same if it is subject to constant cost; but will increase if it is being produced under conditions of diminishing cost.

Referring again to the curves given below we find that in curve No 1 which gives conditions of supply under increasing costs, the new demand curve dd' , when there is an increase in the demand for the commodity and there is also sufficient time for the supply to increase, touches the supply curve at a new point P which now becomes the new point of normal equilibrium. At this point when OP' amount is produced and the same amount is consumed and the price per unit is PP' which is clearly greater than MM' , the old price. This shows that with the production of increased quantity the cost of production per unit increases, and so the price has to be fixed higher. If there were a fall in demand, the new curve ee' would meet the supply curve at Q ; the price would then be QQ' which would be smaller than MM' .

In curve No. 2, where the commodity is being produced under constant cost, there is no difference in the cost. Under an increase in demand the new equilibrium point is P , but the price PP is equal to MM' . The only difference produced by an increase in demand is that while formerly OM' amount was produced and sold, now OP' amount begins to be produced and sold. Likewise in the case of a fall in demand the price is QQ' which is again equal to MM' . The only difference, however, is that the amount produced and demanded has decreased from OM' to OQ' .

In the third curve which shows the tendency of the supply towards diminishing cost, an increase in the demand and so a consequent increase in the supply results is a new equilibrium point which shows a lowering in the price. The new equilibrium point is P and the new price is PP' which is smaller than MM' . This is what production under diminishing costs really means. If, however, the demand falls off, and the production has to be curtailed the price is fixed higher up at the new equilibrium point Q , and QQ' is clearly greater than MM' .

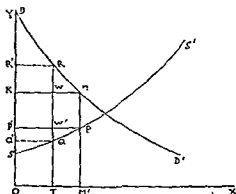


Appendix D.

DIAGRAMMATIC REPRESENTATION OF THE DEMAND AND SUPPLY THEORY OF VALUE UNDER MONOPOLISTIC CONDITIONS.

(a) Monopoly value under increasing costs:—

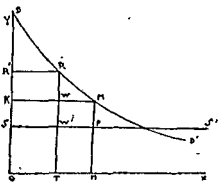
If the monopolist decides to produce OM' amount of the article, his cost of production per unit will be PM' , and the total cost of the entire amount will be $OM'PP'$. We disregard for the moment the triangular area PPS as it will not affect our result. So the total cost of production being measured by the rectangle $OM'PP'$, the total value for which the amount OM' will sell



in the market at MM price per unit will be measured by $OM'MK$. Deducting the total cost from the total exchange value we get the rectangle $PMKP'$. This represents his monopoly gains if he produces OM' amount of the article. But if he decides to produce less, say, only upto OT then his cost of production of OT amount will be measured by the rectangle $OTQQ'$, while the total exchange value at which the amount OT will sell in the market is represented by the rectangle $OTRR'$. Now deducting the total cost $OTQQ'$ from the total exchange value $OTRR'$ we get $Q'QRR'$. This area represents the monopoly gains of the monopolist. He will now compare these gains with those when he produced OM' amount. If he finds the former gains larger in amount he will restrict the production. He will compare the rectangle $Q'QRR'$ with the rectangle $P'PMK$. We find that $P'W'WK$ is common. This may be taken out. He has to compare the two rectangles $QW'P'$ and $KWRR'$ with the rectangle $W'PMW$. We find that even one of the two rectangles, $KWRR'$ is greater than the rectangle $W'PMW$. Clearly, therefore, he will restrict the production to OT as his monopoly gains in this way will be larger than if he produces OM' amount.

(b) Monopoly value under constant costs:—

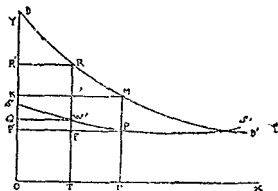
If he produces OM' amount, his total cost is $OM'PS$, while the total exchange value is represented by $OM'MK$. His monopoly gains therefore are represented by the rectangle $SPMK$ which we get after deducting $OM'PS$ from $OM'MK$. If, however, he decides to produce only upto OT , then his total cost will be $OTWS'$ while the total exchange value will be represented by $OTRR'$. The monopoly gains in this case will be $OTRR' - OTWS' - SWRR'$. Now comparing the two, rectangles $SWRR'$ and $SPMK$ which represent monopoly gains in the two cases, we find that $S'WWK$ is common, and $KWRR$ is clearly greater than $WPMW$. He will, therefore, under these conditions of demand and supply, prefer to restrict his supply.



(c) Monopoly Value under diminishing costs ;—

If he produces OM' amount, the total cost is $OM'PP'$ and the total exchange value is represented by the rectangle $OM'MK$.

His monopoly gains are therefore represented by the rectangle $P'PMK$ which we get after deducting $OM'PP'$ from $OM'MK$. If however, he restricts his supply and produces only upto OT , the total cost will be represented by the rectangle $OTW'Q$, while the total exchange value by the rectangle $OTRR'$. His monopoly gains will be $QW'RR'$. Now Comparing the two rectangles, $QW'RR'$ and $P'PMK$ we find that $QW'WK$ is common, and the two rectangles $FPMW$ and $P'FWQ$ are clearly greater than the single rectangle $KWRR'$. We thus reach the conclusion that in the case under consideration the monopolist will not restrict his supply upto OT , but will produce upto OM' in order to reap a large monopoly revenue.



Appendix E.

WATER TRANSPORT IN INDIA.

The importance of transport from the economic, military, administrative, cultural, and social points of view is hardly in need of special emphasis. In fact, the prosperity or otherwise of a nation is closely linked up with its means of transportation in the present day commercial world. Of the different modes of transport water ways play no mean a part. Nearly all the countries of the world have paid attention to develop their waterways, not only oceanic but also in land. The United States and Canada share the magnificent waterways afforded by the Great Lakes, whilst France and Germany have the best developed systems of canal and navigable rivers in the world. In respect of shipping transport also America, England, Canada, Japan, France and Germany are in the forefront. As regards India, she is nowhere on the list. But it was not always so. In the past Indians were a nation of sea-faring people and daring colonizers. They possessed huge ships which carried goods to far off lands. Speaking of the period at the death of Akbar, Moreland points out that the great bulk of the commerce in Indian Seas was carried in ships built in India, and that India had also great passenger ships much larger than any in contemporary Europe with the exception of the ships built by the Portuguese. But, says Mr Taylor, "The arrival in the port of London of Indian produce in Indian built ships created a sensation among the monopolists which could not have been exceeded if a hostile fleet had appeared in the Thames. The ship builders of the port of London took the lead in raising the cry of alarm; they declared that their business was on the point of ruin, and that the families of all the ship wrights in England were certain to be reduced to starvation." The cry prevailed. The Court of Directors opposed the employment of Indian ships in the trade between England and India. Consequently, in course of time India lost her naval supremacy. As regards the inland waterways, they received a death blow with the development of railways. Thus, in course of time India became backward in respect both of inland waterways and marine transport.

Inland Waterways—As regards the inland waterways, India is not favoured to the same extent as England with rivers which serve the purpose of natural waterways. It is stated that there are about 26,000 miles of navigable waterways in connection with the great river systems of Northern India. The Indus, the Ganges, the Brahmaputra, and Irrawaddy are navigable by steamers all the year round, or for the greater part of the year, for hundreds of miles above their mouths or above the heads of navigable canals traversing their *deltas*. Thus the Indus is

constantly navigable as high as Dera Ismail Khan, 800 miles inland. Its tributaries, the Chenab and the Sutlej, are open to small craft all the year round. The Ganges is navigable as high as Cawnpore and steamers pass up the Gogra as far as Fyzabad. The Brahmaputra is navigable by steamers as high as Dibrugarh and there is steam navigation on its tributary, the Surma, as far inland as Sylhet and Cachar. The Hooghly is navigable all the year round upto Nadia and further up from July to October.

The rivers in the Peninsula, however, are unfit for navigation on account of seasonal character of their flow and rocky beds on which they flow. The Mahanadi, the Godavari and the Kistna are indeed navigable in their upper reaches, but the traffic on them is not very considerable.

In addition to these somewhat restricted facilities for river traffic in the country, there are all round the coast innumerable small rivers, creeks and back waters affording facilities for water transport which are fully utilized by small native craft.

Inland waterways were very important before the advent of the railways in India. There were several important cities in India which were situated on the banks of the rivers and were in a flourishing state but now they have lost all their importance. The Industrial Commission point out—"In the absence of a representative specially charged with their interests (that is those of the existing waterways) the vested interests of the railways have prevented waterways in India from receiving the attention that has been given to them in other countries with such satisfactory results." The Acworth Committee also point out that waterways have suffered by unfair competition on the part of the railways and they cite the case of the river port of Broach in Bombay and the Buckingham Canal in Madras in support of their contention. Speaking at the Road-Rail Conference held at Simla in 1933 Mr. Sumner, representative of Inland Steamer Companies, pointed out that where the interests of the existing or intended railways were considered to be at stake by the Provincial Governments they were not allowed to ply. He said, "Sir, I do not think it necessary for me to take up much time in referring to the great disappointment with which we, in Calcutta, view these opinions. They seem to say, in effect, that no development of trade as towards the rivers, no questions of shorter or more natural traffic results, no consideration of public interests or convenience, no action in making use of Nature's High Ways which other countries regard as priceless possessions, must be allowed to interfere with that one all-important factor, the interests of the Railways. Railways too, which may not yet even be in existence but which may conveniently be constructed at some future date."

At one time there was a good deal of agitation in favour of navigable canals. Sir Arthur Cotton, the architect of the magnificent Kaveri and Godavari works prepared a scheme of navigable canals which was put before a Parliamentary Committee in 1872. He estimated that a capital outlay of not exceeding £30,000,000 would be required to construct all the necessary navigable canals. The scheme, however, was dropped on account of the heavy capital expenditure and also because the experience of the Englishmen of their own country was in favour of the railways.

There are only a few navigable canals to-day, such as the Ganges Canal from Hardwar to Cawnpore, and the Buckingham Canal parallel to the east coast in Madras. The irrigation canals are unfit for navigation because they are not very deep and because they pass through areas which are not commercially important. Conditions are, however, more favourable in the deltaic tracts of Bengal, Orissa, Sind and Madras. In Eastern Bengal particularly there is considerable scope for connecting the canals so as to improve the navigation facilities in connection with its great river system.

In spite of the physical limitations imposed upon inland navigation in India there is still some room for improvement in the existing waterways. The Industrial Commission recommended that the Government of India should take up the question and see to it that the railway and waterway administrations work together harmoniously for those parts of the country which are served by both, and that the proposal of forming a waterways Trust should receive careful consideration. Inland waterways, properly developed would relieve any congestion in the railway system and serve the needs of small scale transport in the country. Regulation, development and control of the rivers and waterways through Provincial and Inter-provincial Commissions for the benefit of agriculture and industry has recently been suggested by the National Planning Committee.

Marine transport—The great maritime importance of India is as old as her civilization. She flourished in the past as one of the most outstanding sea-faring countries of the world and occupied a commanding position as a maritime nation, which she retained till the early years of the 19th century. It need hardly be stressed that the peculiar geographical situation was largely responsible for her naval supremacy. The entire southern region of the country has tapered down into a peculiar peninsula developing a coast-line extending over 4000 miles, a coast line which any nation in the world might well be proud of. The obvious and natural advantages of such an extended coast line with suitable site for the harbours were realised in the early

times by the intelligent and enterprising Indians who were not slow to make the most of it. The result was the development of almost a monopoly in marine trade in the waters of the old world monopoly which the Indians enjoyed even a century and half ago.

As a matter of fact, the navy and the mercantile marine continued to receive regular attention in the times of Mohamadan rulers and even of the East India Company. It was only in the course of a century and half that not only did India lose her supremacy but she degenerated into the most backward maritime nation in the world. She is now completely at the mercy of the foreign shipping companies for carrying almost the whole of the export and import trade. Even a very large fraction of her coastal trade is now being carried on in vessels owned and managed by non-Indians, excepting, of course, a few repairing workshops—an industry in which the Indian's specialised and excelled from time immemorial.

The introduction of iron-built ships deprived India of her differential advantage in respect of plentiful supplies of excellent timber. The rapid improvement in naval architecture and the introduction of mechanized sea transport, the jealousy of the British shipping interests and the operation of the British Navigation Acts, which were applied to India as she came more and more under British control may be regarded as the chief causes which led to the decay of Indian shipping.

The sea borne trade may be divided into two heads - (1) the coastal trade and (2) the over-sea-borne trade. It is quite intelligent that the volume of the coastal and over sea trade of India possessing an extended coastline of 4000 miles and rich in minerals and raw materials cannot be small. The total value of the sea-borne trade of India in merchandise and treasure was estimated at Rs. 639 85 crores for the post-war average. It has seriously declined in recent years on account of the economic depression. Its total value in 1939-40 amounted to only Rs 429 46 crores. The total tonnage of entries and clearance of vessels into and from the maritime provinces of India amounted to 22 100 000 in the year 1938-9. In spite of this big volume of trade Indian share in it is not appreciable. It has been estimated that the share of Indians in the coasting trade amounts to 25 per cent and in the oceanic trade to about 4 per cent. The total shipping earnings have been estimated at Rs. 57 crores, of which 50 crores is carried away by foreign steamship companies.

The coastal and over sea trade of India is a monopoly of the shipping conference in which Indians are not allowed to take part. This conference has the aim of encouraging the carrying

of goods in the ships belonging to the members of the shipping conference. This is done by the Deferred Rebate System. Under this system the British shipping companies have formed a committee among themselves; this shipping committee promises to pay back certain percentage of the total freight paid by the shippers under certain conditions dictated by the company itself. The lure of such concessions and rebates is so very great that a diversion from this simply with a view to foster indigenous enterprise is difficult and impracticable. The appeal to nationality to the private trading concern with their eyes always turned to the margin of profit cannot after all be permanent. Another obstacle to the development of Indian shipping is the rate cutting or the rate war policy adopted by the foreign shipping companies and the absence of any control of rate war by the Government. The rate cutting policy is an effective and infallible method of crushing unprotected shipping industry.

The repeated attempts of the indigenous shipping companies to obtain a footing in the coastal trade of India—a trade about which the Indian Mercantile Marine Committee of 1923-24 pointed out. "In nearly all other countries coastal trade has been reserved for the ships of that country. The coasting trade of a country is regarded universally as a domestic trade in which foreign flags cannot engage as of right but to which they may be admitted as an act of grace".—have been systematically frustrated owing to such indiscriminate rate war launched upon by foreign shipping companies in this country. In this connection no example is more adequate than the fate of Scindia Steam Navigation Company with which we are all conversant. The company started its career as a small shipping concern engaged in coastal trade, and received a good deal of support and co-operation of many ship-owners which indicated a fair promise. Within a short time the company increased the volume of its business to such an extent that it was quite sufficient to serve as an impetus to other mushroom companies which came into being very shortly afterwards. Alarmed at these new moves of the Indians which threatened the shipping monopoly in the near future the foreign companies lost no time in making an agreement amongst themselves, adopted the cut-throat policy and thus stifled the enterprise at its very birth. The ~~wid~~ experience of Indian shipping enterprise has been voiced on more than one occasion in the reports and speeches of Mr. Walchand Hirachand, the Chairman of the Scindia Steam Navigation Company. Mr. Jogendra Nath Roy of the East Bengal River Steam Service Ltd, Mr V J. Petal and others—which is too old and well known story to be repeated here

To quote one more instance, the Bengal Burma Steam Navigation Company was started between Chittagong and Rangoon in the favourable current of Swadeshi Movement. The foreign

shipping companies enjoying the monopoly at once reduced the fare from Rs 14/ to Rs. 4/- and even threatened to make the passage to passengers free. Thus the Indian Shipping is nipped in the bud.

After a sound sleep of a century and a quarter of years the people of India have now begun to open their eyes. They now realize the importance of the situation. The question of developing this industry was greatly emphasised in the Indian Legislature several times but at first the government did not seem to pay any attention towards this important question. But at last the pressure of the public opinion compelled the Government to appoint the Indian Mercantile Marine Committee in February 1923, to take stock of the shipping position in Indian shipping and ship building industries.

The Committee stressed upon the need of training executive officers and engineers for the mercantile marine. It suggested a gradual restoration of the coastal trade of India for Indian shipping alone. This is to be effected by laying down certain conditions which must be fulfilled by the shipping companies applying for a license. For instance, the shipping company must be registered in India and owned and managed by an Indian or a joint stock company having a majority of Indians on the Board of Directors. Further, conditions such as the employing of Indian officers, engineers and Indian labour and the use of the ships built in India are to be enforced gradually as the Indians are trained more and more in this line and the ship building art develops. In this way when reservation of the coastal traffic of India to purely Indian shipping companies will become complete and the Indians will show for efficiency in this line the Government should think of granting subsidies and bounties to encourage Indian shipping in the over-sea trade as well. Calcutta should be made a ship-building centre owing to its natural advantages consisting in the fact that it is very near the important coal and iron producing centres. Needless to say that this ship-building concern should be purely Indian backed by a generous assistance. To work this scheme to a successful issue, schools and colleges should be established with foreign experts in teaching and training department to teach the willing Indians the ship-building, engineering and the science of navigation. Also the Government was to arrange for a training ship urgently necessary for this purpose.

It may be pointed out that the Government did not give effect to the recommendations of the Mercantile Marine Committee excepting that a training ship was provided for the people in 1928. The Government and the English people objected to the reservation of the coastal trade to Indian ships on the ground

that it meant a national discrimination which the Government was not prepared to do. But this is not national discrimination. It is only necessary to protect Indian shipping and to build a strong Indian maritime fleet.

Mr. S. N. Haji took active steps in representing the claim of the Indian shipping before the Indian Legislature. In 1928 he moved two bills, namely, (1) The Bill for the reservation of the coastal traffic of India to Indian shipping, (2) the Bill for the abolition of the deferred rebate system.

The second Bill must naturally follow the first. It is essential for the growth of the Indian shipping after the coast has been reserved to the Indian shipping by preventing monopoly in the shipping business. So a conference was held at Delhi in 1930 under the Presidentship of the Viceroy to discuss the Bill. The conference could not arrive at any decision as it was only possible at the cost of one or the other party. Finally, the Viceroy declared that it was only a question of discrimination between the British interests and the interest of the British Indian subjects which was being considered at the Round Table Conference. So the Viceroy could not do anything until the decision of the conference becomes known. That decision at last appeared in the Subcommittee Report of the Indian Round Table Conference which runs thus

"At the instance of the British Commercial Community the principle was generally agreed to that there should be no discrimination between the rights of the British Mercantile community, firms and companies, trading in India, and the rights of the Indian born subjects."

Thus the question was settled at one stroke.

Recently (Sept. 1937) a non-official coastal Traffic Bill, introduced in the Central Assembly by Sir A.H. Ghuznavi, was referred to the Select Committee. The mover pointed out that his Bill did not discriminate between British and Indian shipping. Its object was to regulate unfair competition in coastal waters in the shape of rate-cutting or the grant of rebates—a handicap which acts as a deterrent against Indian capital being invested in coastal shipping. The Government of India were opposed to the Bill on the ground that it was unnecessary and impracticable. Its enactment might be followed by a shipping company mania. On the other hand, they were prepared to regulate coastal shipping within limits.

The Council of State recently (March 1939) passed a resolution asking the Government to take more active steps for the expansion and protection of the Indian mercantile marine. Mr. P.N.

Sapru was the mover of the resolution. He recommended that with a view to achieve the end in view coastal trade for Indian shipping should be reserved, subsidy should be granted and the maximum and minimum rates of freight should be granted. Mr. Dow, the Commerce Secretary pointed out that it was no use for the government to fix rates. He regretted that there was no hope of government granting any subsidy to the Indian shipping concerns, nor could government reserve coastal traffic for them under the provisions of the 1935 constitution.

We are now passing through a world crisis which has mercilessly revealed our utter helplessness. Not to speak of our over-sea trade whose volume is dwindling every day like anything, even it has profoundly affected our coastal trade, since many ships engaged in the coastal traffic have been withdrawn to meet the immediate demands of military operations. The development of shipping in recent years bears a striking contrast to what obtains in India. The war impetus has already accelerated their pace beyond all expectations. Canada has 16 shipbuilding yards, besides 18 other ship-yards where smaller trading vessels are built. Australia has recently drawn up a scheme to build 13 patrol vessels. And with vast resources and raw materials necessary for such enterprise India does not possess a single ship-building yard to-day. But thanks to the initiative taken by Mr. Walchand Hirachand, steps have been taken for the establishment of an Indian ship-building yard. A suitable site has been secured at Vizagapatam. It is proposed to build steel vessels ranging from 8000 to 12000 tons. The Government of India have given facilities for dredging, railways and power supply, and imports of machinery, personnel etc. The work of constructing ship building berths has already been started by the Scindia Steam Navigation Co. Ltd. The Government is well advised to grant suitable bounties for the building of ships in the country. The industry is expected to employ from 3000 to 4000 men including skilled workers, will be Indian managed, Indian controlled and Indian financed. It will, in short, prove a valuable national asset.

Appendix F.

EFFECT OF SECOND WORLD WAR ON INDIAN EXPORTS AND IMPORTS

India is an agricultural country and that fact dominates the course of its trade. The great export staples are the produce of the soil—cotton, jute and seeds. If we look back on the course of Indian trade over a long period of years we shall note a striking development towards stability. In the days that are past, the out-turn of the soil was subjected to periodic shocks from famines arising from the failure of rains and so the export trade in these staples dwindled to small proportions. But the spread of irrigation has produced a great change and though no doubt in future heavy losses may be incurred from the weakness of the monsoons, they are never likely to be as catastrophic as in years 1896-1900. Much of the cultivable area of the Punjab is under irrigation and huge new works have utilised the waters of the Sutlej and of the Indus in Sind.

But whilst India is pre-eminently an agricultural country, she ranks as one of the eight greatest industrial countries of the world. But there have been remarkable changes in her trade owing to many causes. The early post war period after the first great war was characterised by a trade boom caused by the removal of many of the war time prohibitions on exports. The export trade was mostly affected. The markets of Great Britain, the U. S. A. and Japan, who were all among India's best customers, were glutted with Indian produce, and there was a considerable slackening of the demand on their part. The countries of Central Europe no doubt badly wanted Indian products, but could not buy them owing to their shattered resources and reduced purchasing power. The import trade, on the other hand, expanded rapidly. India's import requirements had been starved during the war and orders had been placed for machinery and other manufactured goods during the war and these now began to pour into the country.

In the years 1930-1934 India's foreign trade was dominated by trade depression, which was due to over-production, monetary causes and political unrest. The worst of it was in 1932 when exports dropped to Rs 136 crores, but after that a great recovery was made and in 1936-37 exports were to the value of 302.49 crores of rupees. But in 1937 there was again a rise in the prices owing to the heavy Government expenditure on armaments in many countries. The trade of India in 1937-8 compared with the previous years showed an extension in imports and a decrease in exports which were of only 189.77 crores of rupees. But in 1938-9

the balance of trade improved a little as compared with the previous year.

The outbreak of war in Europe in September 1939 changed the Indian trade position. Commodity prices in India no doubt had shown a slight recovery, but with the exception of a few commodities like jute, sugar and tea, the prices of agricultural produce in general remained at a low level. There was a rise in exports and in 1939-40 exports came to Rs 213.62 crores, mainly owing to the demand created by the war for various kinds of raw materials, though the shortage of shipping prevented the country from reaping the full benefits of the situation. Exports of Indian merchandise showed an increase under jute manufactures, raw jute, cotton, wool and tea. On the other hand, exports of grain, pulses, flour, and oil seeds declined.

Imports also rose to a certain percentage of which oils recorded the largest amount. Imports of machinery, iron and steel declined. The cessation of trade with the enemy countries, higher insurance costs and shipping difficulties caused a dislocation of the import trade.

The export and import trade of India since the declaration of war have been subjected to certain restrictions. Soon after the declaration of war, the Central Government imposed restrictions on the export trade in a large variety of articles. Trading with the enemy countries was prohibited. Steps were also taken to see that supplies did not reach the enemy by indirect channels. With this object in view an elaborate system of export restrictions and licenses was introduced. Export licenses were issued by the Department of Supply and by the Export Trade Controller. Restrictions were also imposed on imports of as many as 68 items in May 1940. Most of these are luxury goods, including commodities of everyday use.

Apart from the adverse effects produced by the war time trade restrictions and limited tonnage, the export trade of India has received a further set back by the closing of the continental markets following the occupation of many parts of Europe by Germany in 1940. The loss was estimated at Rs. 33 crores annually. India has lost half of her export trade in oil seeds, raw jute, cotton, hides etc.

Now we may review the position of exports and imports upto the present time. The total volume of exports fell by Rs. 58.35 crores to Rs. 194.55 crores as against Rs. 252.90 crores in 1941-42, and imports fell by Rs. 62.82 crores to a level of Rs. 110.45 crores as against Rs. 173.27 crores in 1941-42. The balance of trade

increased to Rs. 84'10 crores in 1942-43 as compared to Rs. 79 64 crores in 1941-42.

It is time that a country's industrial advance is generally accompanied on the one hand by an increase in the exports of manufactured articles together with an increase in the imports of raw materials, and on the other hand an increase in the imports of raw materials coupled with a decrease in their exports. A country which industrialises itself consumes its own raw materials, imports more of them if necessary and exports its industrial production in exchange. This tendency was in evidence in India even before the outbreak of the present war. In the trade depression in 1930, imports of manufactured consumption goods like cotton piece goods, sugar and matches into India fell rapidly and were replaced by domestic production. Alongside of this was witnessed a gradual increase in the volume of capital goods like machinery, and technical appliances and other raw materials of industry.

It would, however, be very misleading to regard the present war-time tendencies as a measure of this country's industrial progress. Because imports have fallen very much more than exports in the last five years and the higher proportion of raw-materials to total imports is mainly due to the fact that India has not been able to import the capital goods she badly wants. If capital goods were freely importable raw materials would shrink back to their former place. The decline in the export of raw materials is mainly the result of the loss of overseas markets and so these extra raw materials have been readjusted partly by the increased domestic consumption and partly by the cultivation of food crops in place of non-food crops. The increase in the exports of manufactured articles is due to the fact that India's jute, tea and cloth are badly wanted abroad in the present conditions of acute scarcity.

So decline in raw materials and rise in manufactured exports is a sign of increased industrialisation. But are these war time changes a permanent readjustment of our export trade? This is the most important question as on this depends in the long run our ability to import capital goods and industrialize

(in Lakhs of rupees)

		1938-39.	1939-40.	1940-41	1941-42.	1942-43
Raw jute	...	1340	1783	785	1042	901
Raw cotton	—	2482	3102	2446	1754	530
Seeds	...	1510	1190	1005	1050	1056
Tea	...	2329	2631	2779	3957	3161

These figures of exports show a decrease in jute, cotton and seeds. These are the crops on whose exports on a large scale the agriculturist has for long depended for his cash income.

On the other hand exports of cotton goods and yarn rose from Rs. 757 lakhs in 1938-39 to Rs. 46.11 crores in 1942-43; i. e. from about 4% to 25%. Jute manufactures rose from 16% to 24% in 1939-40 but fell to 13% in 1942-43. Moreover India can easily develop an export trade in sugar and rubber, if the international agreements to be concluded after the war are done on a fair basis. There are many number of commodities such as hides, skins, lac, tobacco, spices, coir, oilcakes etc. which account for a considerable volume of our trade.

It might be argued that Britain is our most important single market, taking more than 30% of our exports and that being our debtor now she is bound to take less from us. It is also possible, when trade is expanding, for Britain to take as much from us as before or even more and yet pay back her dues by greater exports to this country. This is the case with our exports to other countries also. Ours is a diversified export structure. We have not specialised unduly in one or two small commodities like Brazil in Coffee and Chile in nitrates; nor do we depend on one or two narrow markets. So even after the present war, our exports will be in general demand. Our sterling accumulations, however large now must sooner or later be spent out for capital development. The twin objectives of an immediate post war commercial policy for this country are the most prudent employment of sterling credits and the maintenance of export. Only a widespread system of multi-lateral trading which offers scope for expanding economic life, can secure them.

Appendix G.

"INDUSTRIAL DEVELOPMENT IN INDIA DURING THE SECOND WAR."

India, not inaptly, has been described as a rich country inhabited by poor people. She is plentifully endowed with the raw materials of industry. She possesses some of the world's largest reserves of iron ore and manganese ore. Next only to the U. S. A. and France, India has the world's largest reserves of iron ore, and what is more, they are of the richest kind. She is next to the U. S. A., the biggest producer of raw cotton, with an annual estimated production of seven million bales (of 400 lbs). She enjoys a monopoly of jute, the world's cheapest packing

cloth, of which she produces nine million bales per annum. Her supplies of wool are abundant. India to-day is perhaps the largest producer of oil seeds—groundnuts, castor seed, linseed, copra etc., China being the second largest. Her reserves of coal are estimated at between 50 and 60 thousand million tons. There is no shortage of chromium, aluminium, lead, tin, copper, zinc and mica. She ranks first among world's tobacco producers, producing 1,375 million lb in 1936-37, and to-day is also the world's largest sugar producer. One third of the world's cattle population is in India and she produces the largest amount of cattle-hides, the U. S. A. coming only second. Her forest resources are ample covering an area equal to one-fourth of her cultivated area and supplying 100 million tons of wood every year. Recent discoveries of sulphur deposits have laid the foundations of a heavy chemical industry. Since the separation of Burma, she has been poorly equipped with petrol, but there is vast scope for the production of power-alcohol from molasses and of producer gas from charcoal. Modern industry depends on a plentiful supply of cheap-power and India's resources in water-power alone are vast. In spite of these advantages her industrial potentialities remain mostly unexploited. The exigencies of War have tended to break down the traditional policy of *'laissez-faire'* towards Indian industrialization and have given considerable stimulus to industrial development.

And yet the history of industrial development in India is a history of slow and arrested progress. In the main, however, India continued to be an exporter of food and raw materials and an importer of manufactured articles. Thanks to the swadeshi spirit, which stimulated local industrial production, and to the limited efforts of certain provincial Governments since 1903 at helping local industries, some expansion of industry was expected to take place. But in 1910 Lord Morley, then Secretary of State for India, definitely set his face against any attempt on the part of the Government to assist industrial development. The last war, though afforded temporary gains to a few established industries, did nothing to set the country firmly on the road to industrialization. Some attempts to fill the gaps in the industrial system was also made in recent years by the establishment of subsidiary industries for turning out accessories and minor products. But progress was far from rapid or adequate and was mainly confined to consumer's goods and industries. The fear of over production in the jute, cement, match sugar and other industries became imminent. It was widely felt that the policy of discriminating protection had played itself out. Some of the essential producer's goods industries (e.g. machinery, chemicals and dyes) could not be established as they did not satisfy these tests. Above all, the whole scheme of protection by which the prices of protected articles necessarily increased, was unsound so

far as the protection of key industries and basic industries was concerned.

A significant development in the recent industrial history of India is the Congress move for industrial planning for India. For nearly two decades the Indian National Congress was wedded to the policy of reviving and encouraging cottage industries and was generally opposed to industrialization in the modern sense of the term involving the development of large scale mechanized industries. This policy was modified, thanks to the able lead given by Deshgaubhai Subhas Babu the ex-Congress President, and Mr. V. V. Giri the Madras Minister, who were responsible for convening a conference of industrial ministers from the Congress provinces at Delhi in October 1938. The Conference came to the conclusion that the problems of poverty and un-employment, of national defence and of economic regeneration in general could not be solved without industrialization. Subhas Babu stressed in his opening remark that a community which resisted industrialization had little chance, in the world as it was constituted to-day, of surviving inter-national competition. As a step towards such industrialization the conference drew up a comprehensive scheme of National Planning. The scheme emphasised urgency of taking steps to start key industries of national importance, such as the manufacture of machinery and plant and tools of all kinds, manufacture of automobiles, manufacture of electric plant and accessories etc. For preliminary work the conference appointed a National Planning Committee under the chairmanship of Pt Jawaharlal Nehru. While we are conscious of several difficulties—constitutional, political, administrative, technical and financial in carrying on the programme of National Planning, we welcome the new congress move for planning. It is reassuring that the Central Government—as might be gathered from the speech of His Excellency the Viceroy on the occasion of the official Industries Conference held in January 1939 in Bombay—virtually all the Provincial Governments and some of the Indian States like Mysore and Baroda have lent support to the idea of planning. The change in the political situation in the country following the outbreak of war in September 1939 and the resignation of Congress Ministries have given a partial setback to the work of National Planning Committee.

One welcome effect of the present war on Indian Economy is the acceleration of the pace of the country's industrialization which may be regarded as a duty as well as an opportunity. It created a feeling of buoyancy and great expectations were raised regarding industrialization. Although the earlier optimism has not been justified and has since given way to a more sober and chastened optimism, the war has without doubt opened a new chapter in India's industrial history. The drastic curtailment

and restrictions on imports have created conditions of quasi-monopoly for many of the Indian industries in the home market. Also, the increased demand from the Empire for war-materials, and India's own defence requirements have called for greatly increased industrial activity and exploitation of the country's industrial potentialities. The role of India as the leader of the Eastern Group of Empire countries and provider of the allied armies in the Near East was indicated by the session of the Eastern Group Conference at New Delhi in October 1940, the visit of the Roger Mission to this country and the location of the Eastern Group Council in India. Similar significance attaches to the visit to India of the American Technical Mission under the Lease and Lend Act. The modernization of the Indian Army as recommended by the Chatfield Committee has supplied a further incentive to the Industrial Development of India. This process was assisted by 250 'trade' workshops and 23 railway workshops which undertook to produce 700 different items of munitions. As a result of the visit of the Ministry of Supply Mission in the autumn of 1940, over twenty new projects costing Rs 115 crores were taken on hand for the manufacture of different kinds of ammunition. Large war orders were placed with industries of various kinds all over India which amounted to Rs 548 crores up to the end of March 1943 and to Rs 677 crores up to the end of December 1943. The American Technical Mission headed by Dr. Grady, visited India in April 1942, and after carrying out an investigation into India's War-production submitted its report early June 1942 to the Governor-General of India. The sole object of the Mission, according to the assurance given by Dr. Grady, is to help India in all-out production to win the war and not to bring American capital into India. Its recommendations call upon the Government firstly to set up War Cabinet consisting of three or five members responsible for production, transportation, communication, defence and finance in order to control war production in all its phases: and secondly to undertake a drastic rationalization and regimentation of Indian industry. The Mission specifically recommends a further investigation into the possibility of producing power-alcohol, further measures to extend the availability of electric-power, the expansion of the steel industry, measures to stimulate the production of aluminium, measures to conserve tin and rubber, the acceleration of the production of refined sulphur etc. It favours great augmentation of the training programme of the Government of India, both in special institutions and in industrial plants themselves. Regimentation of the Economic life of the entire community is implied in the Mission's recommendation about industry. Another favourable factor has been the further liberalization of the industrial policy of the Government of India during the War. In the first place they have given an assurance of extending protection against unfair competition from outside to industries now created

to meet war requirements, after the war is over, as in the case of steel pipes and tubes, industry or the aluminium industry. Secondly, the Government of India have started a Board of Scientific and Industrial Research (1940) whose finances have (November 1941) been placed on a firmer footing by the establishment of a separate Industrial Research Fund with an annual allotment of Rs 10 lakhs for a period of five years. Prof Sen of Calcutta University in his recent article exposed the aim of the board as, "Its creation was, therefore, actuated more by the urgent considerations of the Empire's safety in the event of Axis aggression than of any national development, although there are now signs that the Board will eventually prove to be a national asset. With the creation of the Board, the Industrial Intelligence and Research Bureau was held in abeyance and its functions were taken over by the Board". In his concluding remark he agreed that, "for all its drawbacks and defects, the fact remains that the Imperial Government of India has at last taken a really bold step in recognizing the place of Science in the Industrial progress of this country." Thirdly, the Government of India have been trying to remedy the shortage of technicians and skilled workers, partly by launching the scheme for training war technicians recommended by the Sargent Committee and partly by taking advantage of the facilities offered to Indian apprentices for technical training in factories in the United Kingdom under the scheme of Mr. Bevin, the Minister of Labour. In accordance with the recommendations of the Sargent Committee whose report was published in September 1940, the Government of India are making immediate arrangements to train about 3,000 technicians for war industries. It was estimated that approximately 10,000 men would be required for war work within the next nine months (i.e. in the beginning of 1942). The Sargent Committee expressed the view that stimulus given to Indian Industries by war production would be maintained after the war, and most of the skilled men released from war industries would be absorbed in others. It is necessary, however, for the Government from now on to pursue an industrial policy which will avert a post-war depression. The lack of trained personnel was undoubtedly a grave handicap. Most of the operations in a modern factory can be learnt in a few weeks by the least skilled. The Government itself worked out a scheme for training 48,000 industrial workers at 310 centres by March 1943 and the number has now been considerably exceeded. The Bevin Scheme, by which Indian workmen are sent to England for an intensive course of training in British factories, has been a success and these "Bevin Boys" are now engaged in training other workmen.

The lack of shipping, the restriction on Imports of various kinds imposed by the Government to save freight, and the

inability of other countries, themselves engaged in total war, to send goods to India have all strengthened the forces at work to quicken internal production. The extent of the development may be seen from the progress made by several industries during the last three years.

The Textile Industry. All the textile industry increased their production, including the handloom. There has been a marked increase of exports of textiles to Australia, New-zealand, South Africa and other countries which previously depended upon British imports. More than a dozen new mills and 100 handloom factories have been established for the first time in the history of cotton industry, accessories like bobbins shuttles, pickers and belt-ings, have been undertaken and supplied. New lines such as mosquito nets, camouflage nets, cellular and water-proof khaki, came into production. A new cloth known as cotton-jute union fabric, was manufactured and placed on the market. All the handlooms were fully employed in meeting army orders. The Jute industry expanded rapidly on account of large orders for sand-bags and jute-cloth. The manufacture of parachute silk and ligature silk was undertaken for the first time. Woollen mills, both power-loom and hand-loom, increased their output which was entirely purchased by the Government. The war orders for cotton goods amounted to less than two percent of its normal annual production, the total war-orders for the entire industry being worth Rs. 5 crores; while the scarcity of freight checked the enterprise of the industry to expand its overseas trade.

Paper, Glass and other industries :— The number of Paper factories in operation rose from 11 in 1938-39 to 17 in 1942-43 and production of paper increased from 60 thousand tons in 1938-39 to 94 thousand tons the next year. In order to meet the problem of paper shortage, the Government approached the point from two directions. Indigenous production is being expanded; consumption in Government Departments is being regulated and controlled. As a result it is anticipated (in May 1943) that production in India this year will show a rise of about 12 000 tons. The establishment of new "glass factories" in the United Provinces increased production to such an extent as to meet half the country's requirements, whereas before the war only a quarter had been met. The United Provinces has eight hollow-ware factories, 47 bangle factories and more than 1,000 cottage workshops. The total value of the output of the industry is estimated at Rs 2 crores. A new product called windolite has been manufactured and the production of glass tubes, surgical and laboratory requirements has shown marked increase. Research on the purification of Indian glass sands is being pursued. Progress has been made, but large-scale developments proved difficult owing to the difficulties experienced in removing veins

The "leather industry" has made rapid progress as may be seen from the fact that the total output of shoes has been estimated at 70 million pairs per year, of which army boots alone account for 4 million pairs. A number of harness and saddlery factories have been opened to make the full use of productive capacity. Likewise steps have been taken to maximize the production of "rubber and rubber goods." The problem of rubber substitute is especially important now, when there is a serious shortage of rubber of all forms and all the rubber that is produced is required for essential war-purposes. As regards the reclamation of rubber waste, experiments were carried out with the help of easily available indigenous raw-materials. By suitable adjustments of quantities of the reactants it has been found possible to obtain 90-95% reclaim and nearly 75% rubber substitutes.

Drugs and medicines :— The most rapid expansion was witnessed in the drugs industry and more than 75% of the drugs formerly imported are now produced within the country. Shark-liver oil has practically replaced Cod-liver oil.

Luxury goods :— The imposition of restrictions on imports has fostered the local production of confectionary, tinned fruit, tobacco, soap and toilet articles, pencils, stationery cutlery, buttons, durries, coir, pith-hats and minor chemicals.

The Chemical industry :— The war has laid the foundations of a heavy chemical industry. The Alkali and Chemical Corporation of India and Tata Chemicals Limited set up plants in 1941 and with Imperial Chemical Industries, started producing Sulphuric Acid, Synthetic Ammonia, Caustic Soda from salt and lime and for the manufacture of liquid chlorine, bleaching powder and hydrogen. Two large works have undertaken to produce alkali products from salt, and it is expected that enough soda ash and caustic soda will be produced for India's internal needs. More than 50 new chemical plants have begun work, mostly in Bengal; and a large number of industrial chemicals, formerly imported, are now being manufactured locally. Five new projects have been floated with the object of setting up electrolytic plants for the production of heavy chemicals. The Government has erected a plant for the manufacture of Super-tropical and tropical bleaching powder. All materials required for water sterilization and clarification are now produced in India.

Machine tools :— A small beginning has also been made in the production of machine tools and machinery. By the end of 1941 100 firms had been licensed to manufacture machine tools and lathes, drilling, shaping, planing and other simple types of tools and machinery. Over of 4,500 out of 5,000 items of small tools are now made in India. Out 40,000 items required for the

defence services, 20,000 are now produced in India as well as over 350 new items of engineering stores.

Miscellaneous :— There has been a marked increase in the development of a number of miscellaneous industries, fire engine and A R P equipment of all kinds are made in India, Armoured steel plates are being rolled for the first-time. The manufacture of alloy-steel, essential for the manufacture of field anti-aircraft and anti-tank guns has been undertaken. Acid steel required for the manufacture of railway wheels tyres and axles is also produced, as well as several other special steels. Other manufactured articles previously imported but now produced in India are wire mesh, benzol, rubber goods, disinfectants, binoculars, lubricating oils, lead pipes etc. A factory has been set up to manufacture aluminium from indigenous ores. Small naval vessels are being built, and prismatic glass, opal shade lamps and anchors, required for the ship building industry are now produced. The Hindustan Aircraft Company established to produce aeroplanes, remains only an assembly plant, to which has recently been added a repair shop for aircraft operating in the East. Recently the Government sanctioned the permission to start Motor industry in India.

In spite of this apparently impressive record of industrial advance, public opinion has been dissatisfied with the pace of industrialization. In the first place, the total war-orders placed in India were only Rs 300 crores till the end of 1941 against Rs 11,000 crores placed in Canada; for the next two years the total is Rs. 377 crores. So it is a poor record in comparison with that of Australia and Canada.

In the second place, India's best defence lay, according to the government, in sending money and raw-materials to Great Britain. Railways were dismantled, wagons and rails and locomotives were dispatched to theatres of war without any arrangements being made for their manufacture at home. It took a long time for the Government to realize that India could neither defend herself nor fight actively if she had to depend entirely upon Great Britain or America, the supplies from which might be interrupted by the risks of and delays in transport. In India, even the manufacture of locomotives, already recommended by an expert committee, was given up at the last moment on the ground that it was more desirable to import them from abroad.

Thirdly, it is argued that government has exaggerated the difficulties and obstacles in the way of establishing the machine-tool, automobile, air-craft and shipping industries, for all of which machinery must be imported. Some of the plant being erected in United Kingdom and the U S A could have been

transferred to India. At present the available shipping space should be devoted to the transport of plant and machinery rather than to finished goods. Again, the "Foodgrains Policy Committee" of the Government of India recently recommended the import of plant for the manufacture of 350,000 tons of Ammonium Sulphate. The Government can implement all this, speed up its system of training and lay the foundation of a sound scheme of industrial and technical training which can be continued after the war.

Despite plethora of investible funds and an absence of restriction on new capital issues until May 1943, the number of new companies floated in the three years 1940-43 was less than in the three preceding peace years. Only existing companies greatly increased their capacity. The Government has given an assurance that it will protect certain industries, started for war-purposes, against competition after the war, by tariffs or other forms of assistance. But what is required in order to achieve industrial development to-day, and after the war, is more direct and active association of the Government with industrial activity. The future of industrialization will mainly depend upon the industrial and fiscal policy of the government after the war.

Industrial development is closely bound up with the development of cheap power and extensive transport. Coal, the main source of industrial power, is available only at a high cost in regions away from the coal fields of Bengal and Bihar. Hydro-Electric power offers the best alternative but until recently its development has been very slow. From every point of view electrification of the coal is the only rational method of utilizing it for power. The planning and rapid development of schemes for obtaining electricity both from coal and water should be the function of the State. The Government of India has a mind to exploit the water-power after the war. More than power, transport is an indispensable condition of industrial progress. Industries have followed transport facilities. Although railways carry more than 90% of the total volume of goods and services moved within the country, motor transport has taken rapid strides in the last twenty years and has become an indispensable agency for short hauls of goods and passengers. Railways and motor transport can not be had cheaply in this country unless the manufacture of all railway plant, equipment, locomotives, wagons etc and motor vehicles is undertaken in India. The same applies to electrical appliances and equipment. The need for an aircraft industry to promote air transport is as urgent as it is obvious. But the recent Aviation Conference clearly proved that Britain and U. S. A. both have the desire to get the monopoly of air-transport after the war. But if India is to be self-sufficient in regard to her shipping requirements, it is necessary to undertake the ship-building industry on a large scale.